

TEST REPORT

Report Number: R15191165-E11

Applicant : Garmin International Inc.
1200 East 151St Street
Olathe, KS 66062-3426, USA

Model : A04413

FCC ID : IPH-04413

IC : 1792A-04413

EUT Description : Wearable Smart Watch

Test Standard(s) : FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 3
ISED RSS-GEN ISSUE 5 + A1 + A2

Date Of Issue:
2024-07-03

Prepared by:
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REPORT REVISION HISTORY

Rev.	Issue Date	Revisions	Revised By
V1	2024-05-01	Initial Issue	B. Kiewra
V2	2024-05-06	Updated antenna gain	B. Kiewra
V3	2024-07-03	Updated firmware version	Noah Bennett

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Garmin International Inc.
1200 East 151st Street
Olathe, KS 66062-3426, USA

EUT DESCRIPTION: Wearable Smart Watch

MODEL: A04413

SERIAL NUMBER: 3467745434, 3467745272

SAMPLE RECEIPT DATE: 2024-03-13

DATE TESTED: 2024-03-20 to 2024-04-04

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	
ISED RSS-247 Issue 3	Refer to Section 2
ISED RSS-GEN Issue 5 + A1 + A2	

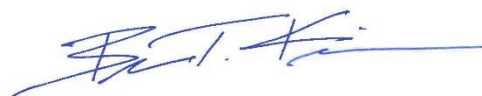
UL LLC tested the above equipment in accordance with the requirements set forth in the above standards. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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.

Approved & Released
For UL LLC By:

Prepared By:



Michael Antola
Staff Engineer
Consumer, Medical and IT Segment
UL LLC

Brian Kiewra
Project Engineer
Consumer, Medical and IT Segment
UL LLC

2. TEST RESULTS SUMMARY

This report contains info provided by the customer 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.

Below is a list of the data/info provided by the customer:

- 1) Antenna gain and type (see section 6.3)
- 2) Worst-case data rates (see section 6.5)

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	Reporting purposes only	ANSI C63.10 Section 6.9.3.
15.247 (a) (2)	RSS-247 5.2 (a)	6dB BW	Compliant	None
15.247 (b) (3)	RSS-247 5.4 (d)	Output Power		
See Comment		Average power	Reporting purposes only	Per ANSI C63.10, Section 11.9.2.3.2.
15.247 (e)	RSS-247 5.2 (b)	PSD	Compliant	None
15.247 (d)	RSS-247 5.5	Conducted Spurious Emissions		
15.209, 15.205	RSS-GEN 8.9, 8.10	Radiated Emissions		
15.207	RSS-Gen 8.8	AC Mains Conducted 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 C63.10-2020, 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 3.

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	UNCERTAINTY
Radio Frequency (Spectrum Analyzer)	141.2 Hz
Occupied Channel Bandwidth	1.22%
RF output power, conducted	1.3 dB (PK) 0.45 dB (AV)
Power Spectral Density, conducted	2.47 dB
Unwanted Emissions, conducted	1.94 dB
All emissions, radiated	6.01 dB
Conducted Emissions (0.150-30MHz) - LISN	3.40 dB
Temperature	0.57°C
Humidity	3.39%
DC Supply voltages	1.70%
Time	3.39%

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

5.4. SAMPLE CALCULATION

RADIATED EMISSIONS

Where relevant, the following sample calculation is provided:

$$\text{Field Strength (dBuV/m)} = \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \text{Cable Loss (dB)} - \text{Preamp Gain (dB)}$$

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

MAINS CONDUCTED EMISSIONS

Where relevant, the following sample calculation is provided:

$$\text{Final Voltage (dBuV)} = \text{Measured Voltage (dBuV)} + \text{Cable Loss (dB)} + \text{Limiter Factor (dB)} + \text{LISN Insertion Loss}$$

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

6. EQUIPMENT UNDER TEST

6.1. EUT DESCRIPTION

The EUT is a smartwatch with BT, BLE, ANT+, 802.11b/g/n 2.4GHz WLAN, NFC, and Global Navigation Satellite System (GNSS) receiver. This report covers testing on ANT radio (2402-2480MHz). This testing will also be used to cover ANT+ radio.

6.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402-2480	ANT/ANT+	5.46	3.52

6.3. DESCRIPTION OF AVAILABLE ANTENNAS

The antenna(s) gain and type, as provided by the manufacturer' are as follows:
The radio utilizes an antenna with the following type and maximum gain:

Type	Frequency Range (MHz)	Maximum Gain (dBi)
Inverted F	2350-2530	-2.63

6.4. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was revision 8.00.

6.5. WORST-CASE CONFIGURATION AND MODE

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

Radiated Band edge was performed with the EUT set to transmit at the highest power on lowest (2402MHz), next lowest in (2404MHz), highest (2480MHz), and next highest in (2480MHz) channels. Radiated emissions between 1GHz and 18GHz were performed with the EUT set to transmit at the highest power on low (2404MHz), middle (2440MHz) and high (2478MHz) channels.

The fundamental of the EUT was investigated in three orthogonal axes, X, Y, and Z. Worst-case orientation was determined to be the Y-axis. Therefore all testing was performed with the EUT in the Y-axis.

Antenna port testing was done on additional channels 2404 and 2478MHz as these channels are set to higher power than 2402 and 2480MHz.

Note: To reduce size of report only representative plots are included for some conducted testing.

6.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
USB-A power supply	Bose	S008AHU0500160	072381Z60770055AE	NA

I/O CABLES

I/O Cable List						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	Proprietary	1	4 pin Proprietary	Non-Shielded	<3m	Used for charging only

TEST SETUP

EUT was configured using its own built-in push buttons prior to testing. For final emissions testing, the EUT was connected to AC mains.

SETUP DIAGRAMS

Please refer to R15191165-EP1 for setup diagrams

7. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment Used - Wireless Conducted Measurement Equipment

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
90410	Spectrum Analyzer	Keysight Technologies	N9030A	2023-06-14	2024-06-14
90778	RF Power Meter	Keysight Technologies	N1911A	2023-10-06	2024-10-31
135125	Peak and Avg Power Sensor, 50MHz to 18GHz	Keysight Technologies	N1921A	2023-08-21	2024-08-21
238710	Environmental Meter	Fisher Scientific	15-077-963	2023-06-27	2024-06-27
SOFTEMI	Antenna Port Software	UL	Version 2022.8.16		
Power Software	Boonton Power Analyzer	Boonton	Version 3.0.13.0		
ETSI Power Software	EMPower ETSI Burst Measurement System	ETS-Lindgren	Version 1.0.3.18		
211055	Real-Time Peak Power Sensor 50MHz to 8GHz	Boonton	RTP5000	2023-08-01	2024-08-01

Test Equipment Used - Wireless Conducted Attenuators, Cables, and Couplers

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
Attenuators					
226563	SMA Coaxial 10dB Attenuator 25MHz-18GHz	CentricRF	C18S2-10	2024-02-29	2025-02-29
Cables					
CBL093	Micro-Coax UTiFLEX Cable Assembly, Low Loss,40Ghz	Carlisle Interconnect Technologies	UFA147A-2-0360-200200	2024-03-01	2025-03-01

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

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
CBL087	Coax cable, RG223, N-male to BNC-male, 20-ft.	Pasternack	PE3W06143-240	2023-04-04	2024-04-04
179892	Environmental Meter	Fisher Scientific	15-077-963	2023-07-26	2024-06-31
80391	LISN, 50-ohm/50-uH, 250uH 2-conductor, 25A	Fischer Custom Com.	FCC-LISN-50/250-25-2-01	2023-07-31	2024-07-31
75141	EMI Test Receiver 9kHz-7GHz	Rohde & Schwarz	ESCI 7	2023-08-01	2024-08-01
52859	Transient Limiter, 0.009-100MHz	Electro-Metrics	EM-7600	2023-04-04	2024-04-04
PS214	AC Power Source	Elgar	CW2501M	NA	NA
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		

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

Equipment ID	Description	Manufacturer	Model Number	Last Cal.	Next Cal.
1-18 GHz					
206211	Double-Ridged Waveguide Horn Antenna, 1 to 18 GHz	ETS Lindgren	3117	2023-04-06	2024-04-06
18-40 GHz					
204704	Horn Antenna, 18-26.5GHz	Com-Power	AH-826	2023-07-20	2025-07-20
Gain-Loss Chains					
91979	Gain-loss string: 1-18GHz	Various	Various	2023-05-16	2024-05-16
135999	Gain-loss string: 18-40GHz	Various	Various	2023-05-16	2024-05-16
Receiver & Software					
206496	Spectrum Analyzer	Rohde & Schwarz	ESW44	2023-07-19	2024-07-19
81018	Spectrum Analyzer	Agilent	E4446A	2023-08-01	2024-08-01
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
241205	Environmental Meter	Fisher Scientific	15-077-963	2023-09-05	2025-09-05

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

Equipment ID	Description	Manufacturer/Brand	Model Number	Last Cal.	Next Cal.
0.009-30MHz					
135144	Active Loop Antenna	ETS-Lindgren	6502	2024-01-24	2025-01-24
30-1000 MHz					
159203	Hybrid Broadband Antenna	Sunol Sciences Corp.	JB3	2024-03-05	2026-03-05
Gain-Loss Chains					
91975	Gain-loss string: 0.009-30MHz	Various	Various	2023-06-06	2024-06-06
91978	Gain-loss string: 25-1000MHz	Various	Various	2023-06-06	2024-06-06
Receiver & Software					
197954	Spectrum Analyzer	Rohde & Schwarz	ESW44	2024-03-05	2025-03-05
SOFTEMI	EMI Software	UL	Version 9.5 (18 Oct 2021)		
Additional Equipment used					
200540	Environmental Meter	Fisher Scientific	15-077-963	2023-07-19	2025-07-19

8. MEASUREMENT METHOD

On Time and Duty Cycle: ANSI C63.10-2020 Section 11.6

6 dB BW: ANSI C63.10-2020 Subclause -11.8.2

Occupied BW (99%): ANSI C63.10-2020 Section 6.9.3

Output Power: ANSI C63.10-2020 Subclause -11.9.1.2 Method PKPM1 Peak-reading power meter
ANSI C63.10-2020 Subclause -11.9.2.3.2 Method AVGPM-G (Measurement using a gated RF average-reading power meter)

PSD: ANSI C63.10-2020 Subclause -11.10.2 Method PKPSD (peak PSD)

Conducted emissions non-restricted frequency bands: ANSI C63.10-2020 Subclause -11.11 and 6.10.4

Radiated emissions restricted frequency bands: ANSI C63.10-2020 Subclause -11.12.1 and 6.10.5, 6.3 to 6.6.

AC Power-line conducted emissions: ANSI C63.10-2020, Section 6.2.

9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

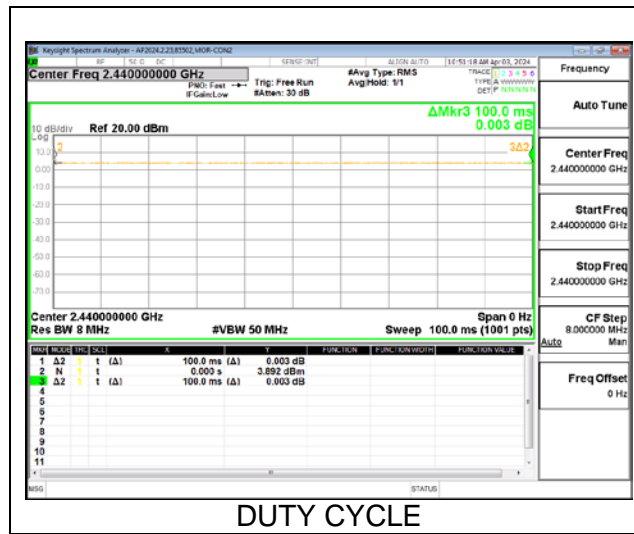
LIMITS

None; for reporting purposes only.

TEST PROCEDURE

KDB 558074 Zero-Span Spectrum Analyzer Method.

Mode	ON Time B (ms)	Period (ms)	Duty Cycle x (linear)	Duty Cycle (%)	Voltage Duty Cycle Correction Factor (dB)	RMS Duty Cycle Correction Factor (dB)
ANT/ANT+	100.00	100.00	1.000	100.00	0.00	0.00



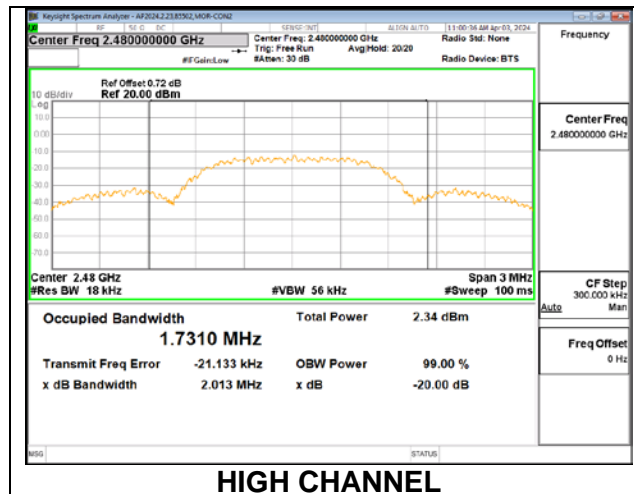
Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB. This will be applied to the AV measurement.

9.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.4479
Low	2404	1.3457
Mid	2440	1.3560
High	2478	1.4588
High	2480	1.7310



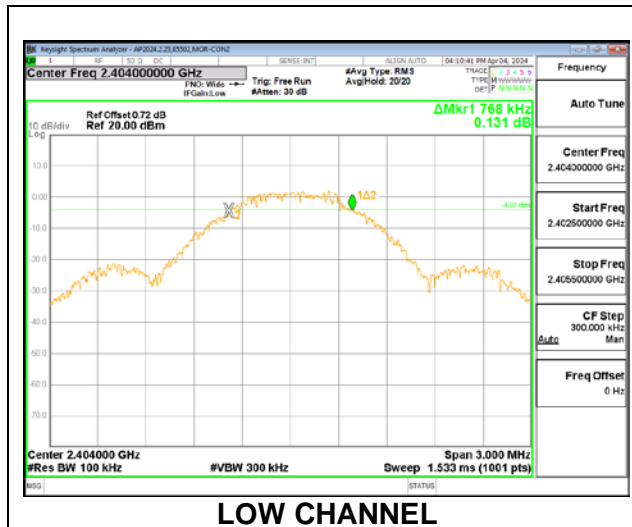
9.3. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)
 RSS-247 5.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

Channel	Frequency (MHz)	6 dB BW Chain 0 (MHz)	Minimum Limit (MHz)
Low	2402	0.924	0.5
Low	2404	0.768	0.5
Mid	2440	0.810	0.5
High	2478	0.966	0.5
High	2480	0.924	0.5



9.4. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)
RSS-247 5.4 (d)

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 0.72dB (including 0.72 dB cable) was entered as an offset in the power meter.

The power output was measured on the EUT antenna port using SMA cable connected to a power meter via wideband power sensor. Peak output power was read directly from power meter.

DIRECTIONAL ANTENNA GAIN

For 1Tx, directional gain equals antenna gain.

RESULTS

Test Engineer:	85502
Test Date:	2024-03-20

Limits

Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	Max Power (dBm)
Low	2402	-3.08	30.00	30.00
Low	2404	-3.08	30.00	30.00
Mid	2440	-3.08	30.00	30.00
High	2478	-3.08	30.00	30.00
High	2480	-3.08	30.00	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2402	1.36	30.00	-28.64
Low	2404	4.88	30.00	-25.12
Mid	2440	5.26	30.00	-24.74
High	2478	5.46	30.00	-24.54
High	2480	2.03	30.00	-27.97

9.5. AVERAGE POWER

LIMITS

None; for reporting purposes only

TEST PROCEDURE

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 0.72dB (including 0.72 dB cable) was entered as an offset in the power meter.

The power output was measured on the EUT antenna port using SMA cable connected to a power meter via wideband power sensor. Peak output power was read directly from power meter.

Test Engineer:	85502
Test Date:	2024-03-20

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)
Low	2402	1.14
Low	2404	4.66
Mid	2440	5.03
High	2478	5.25
High	2480	1.76

9.6. POWER SPECTRAL DENSITY

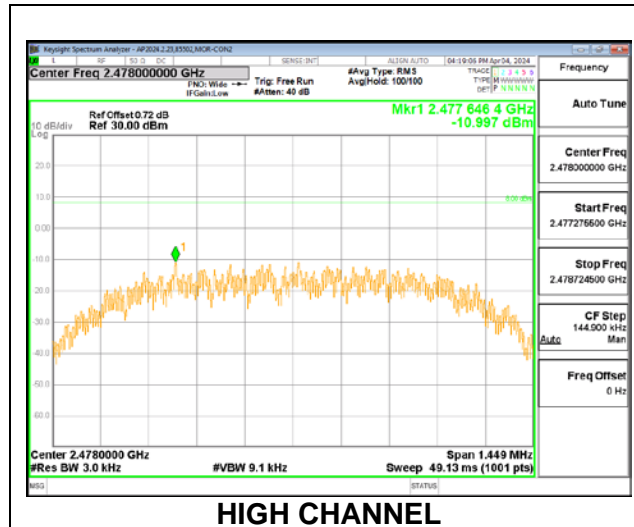
LIMITS

FCC §15.247 (e)
 RSS-247 (5.2) (b)

The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

PSD Results

Channel	Frequency (MHz)	Meas (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
Low	2402	-17.080	8.0	-25.1
Low	2404	-11.291	8.0	-19.3
Mid	2440	-12.189	8.0	-20.2
High	2478	-10.997	8.0	-19.0
High	2480	-15.492	8.0	-23.5



9.7. CONDUCTED SPURIOUS EMISSIONS

LIMITS

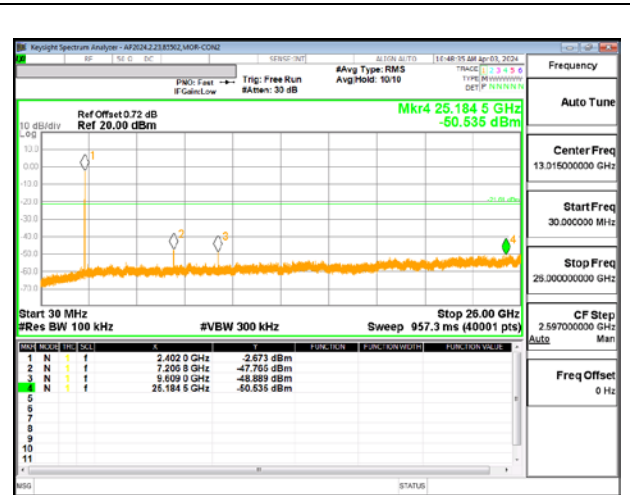
FCC §15.247 (d)
RSS-247 5.5

Output power was measured based on the use of peak measurement, therefore the required attenuation is -20 dBc.

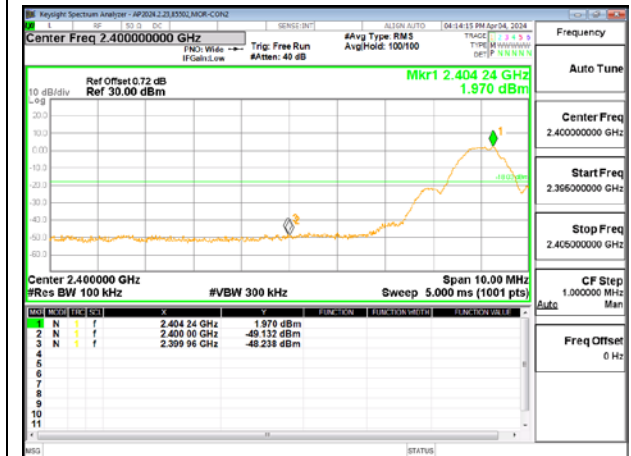
RESULTS



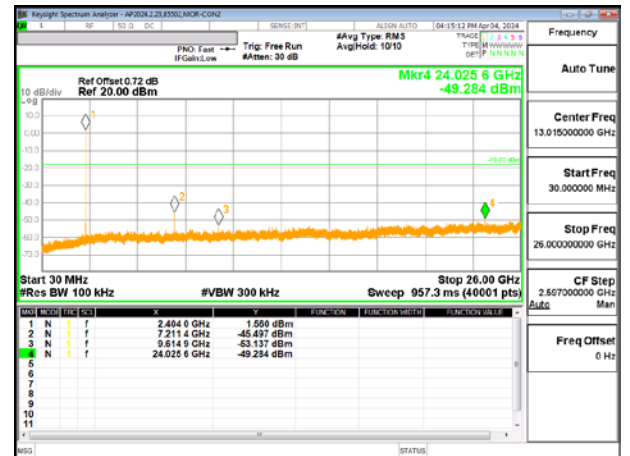
LOW CHANNEL



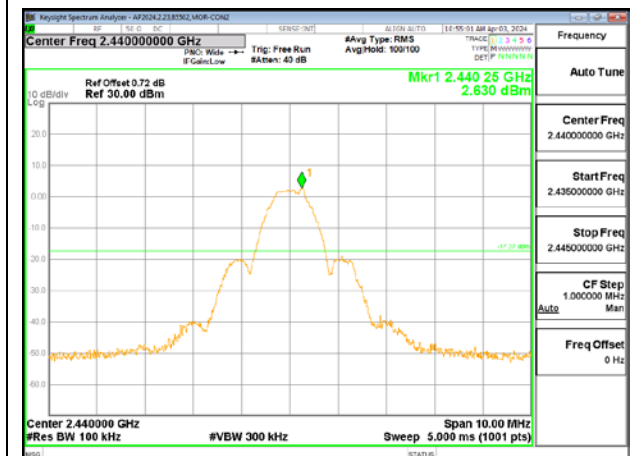
LOW CHANNEL



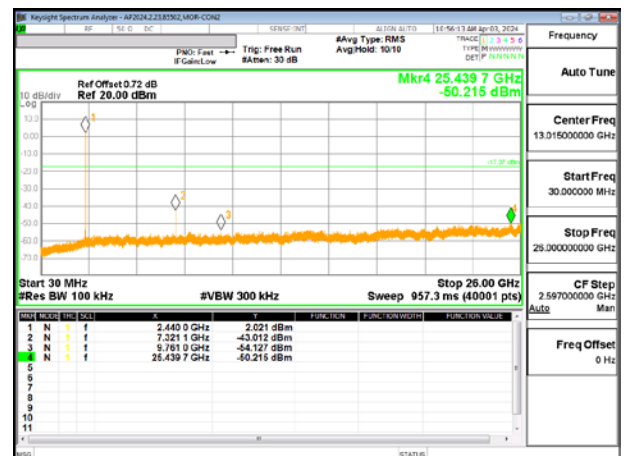
LOW CHANNEL



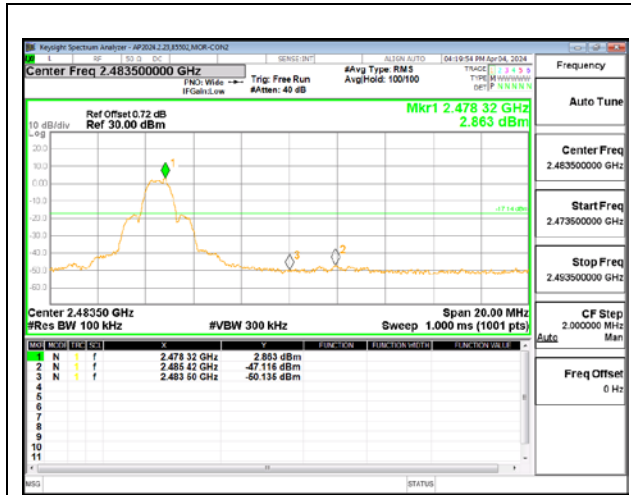
LOW CHANNEL



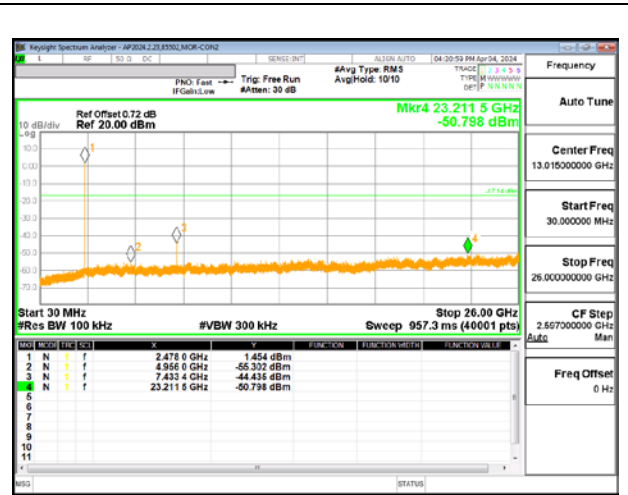
MID CHANNEL



MID CHANNEL



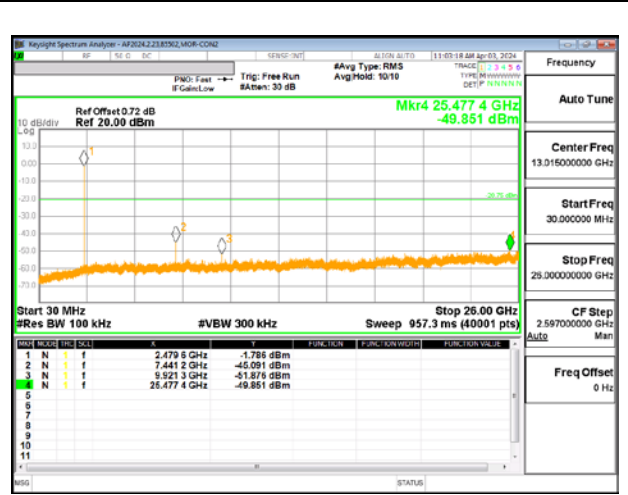
HIGH CHANNEL



HIGH CHANNEL



HIGH CHANNEL



HIGH CHANNEL

10. RADIATED TEST RESULTS

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

IC RSS-GEN Clause 8.9 and 8.10

Frequency Range (kHz)	Field Strength Limit (uA/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
0.009-0.490	6.37/F(kHz) @ 300 m	-
0.490-1.705	63.7/F(kHz) @ 30 m	-
1.705 - 30	0.08 @ 30m	-
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for measurement below 1GHz; 1.5 m above the ground plane for measurement above 1GHz. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.10. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements in the 30-1000MHz range, 9kHz for peak and/or quasi-peak detection measurements in the 0.15-30MHz range and 200Hz for peak and/or quasi-peak detection measurements in the 9 to 150kHz range. Peak detection is used unless otherwise noted as quasi-peak or average (9-90kHz and 110-490kHz).

For pre-scans above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3MHz for peak measurements.

For final measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 3 MHz for peak measurements and as applicable for voltage average measurements.

The spectrum from 1 GHz to 18 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band. Below 1GHz and above 18GHz emissions, the channel with the highest output power was tested.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

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

Base on FCC 15.31 (f) (2): measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field.

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

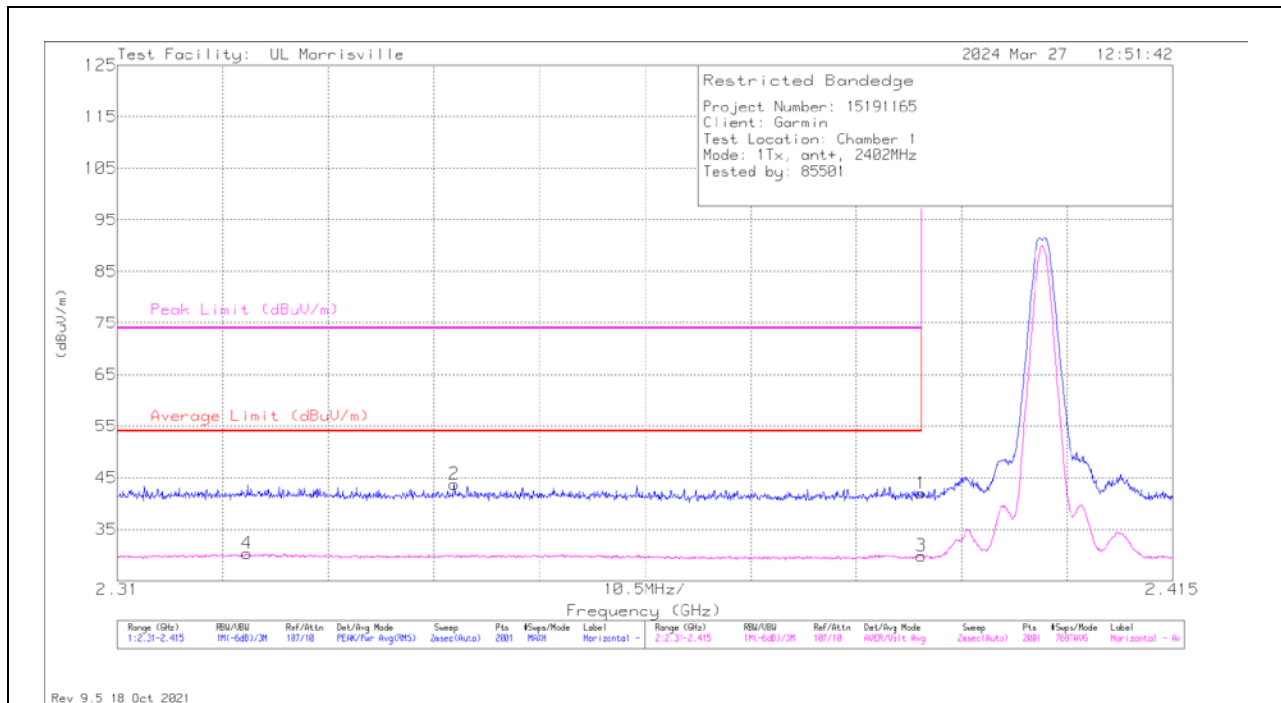
OFS and chamber correlation testing had been performed and chamber measured test result is the worst-case test result.

10.1. TRANSMITTER ABOVE 1 GHz

10.1.1. TX ABOVE 1 GHz ANT/ANT+ MODE IN THE 2.4 GHz BAND

BANDEDGE (LOW CHANNEL, 2402MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 2.38996	34.13	Pk	32.1	-24.2	0	42.03	-	-	74	-31.97	148	142	H
2	*** 2.3435	35.77	Pk	32	-24	0	43.77	-	-	74	-30.23	148	142	H
3	*** 2.38996	39.71	ADV	32.1	-24.2	-17.72	29.89	54	-24.11	-	-	148	142	H
4	*** 2.32286	39.99	ADV	31.9	-23.8	-17.72	30.37	54	-23.63	-	-	148	142	H

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

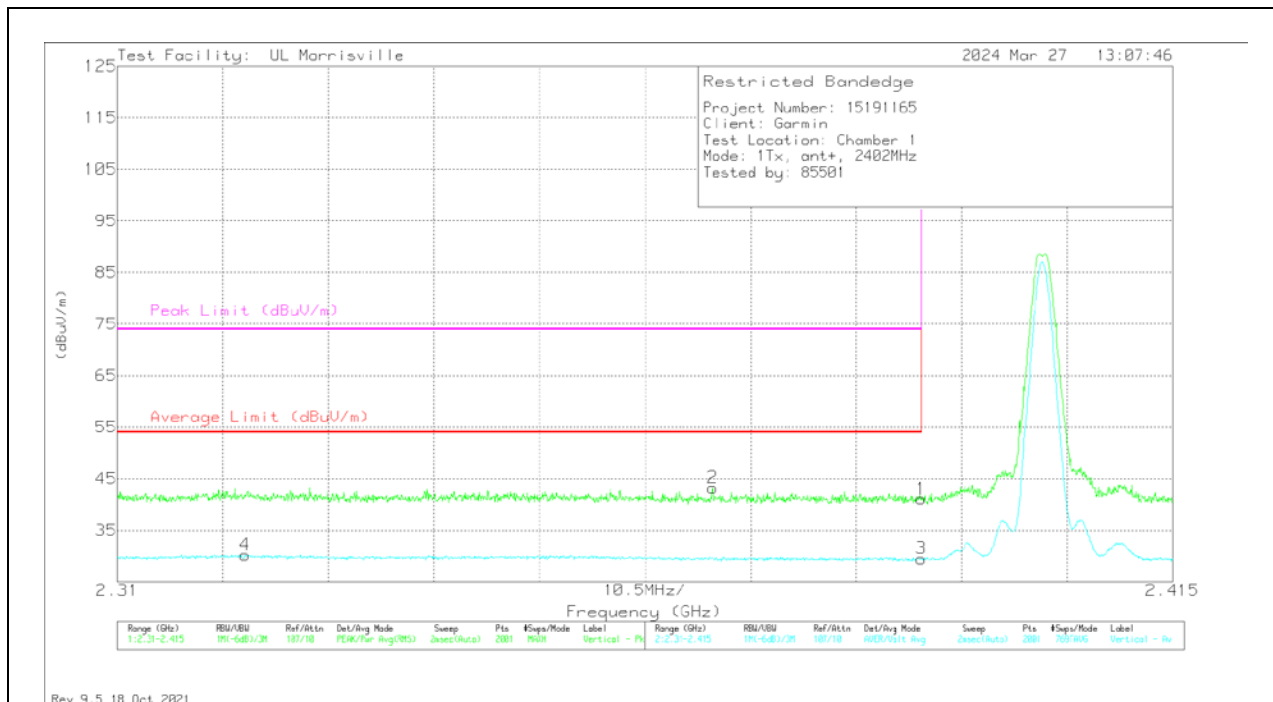
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 2.38996	33.21	Pk	32.1	-24.2	0	41.11	-	-	74	-32.89	79	131	V
2	** 2.36922	35.37	Pk	32	-24.1	0	43.27	-	-	74	-30.73	79	131	V
3	*** 2.38996	39.37	ADV	32.1	-24.2	-17.72	29.55	54	-24.45	-	-	79	131	V
4	*** 2.32271	39.86	ADV	31.9	-23.8	-17.72	30.24	54	-23.76	-	-	79	131	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

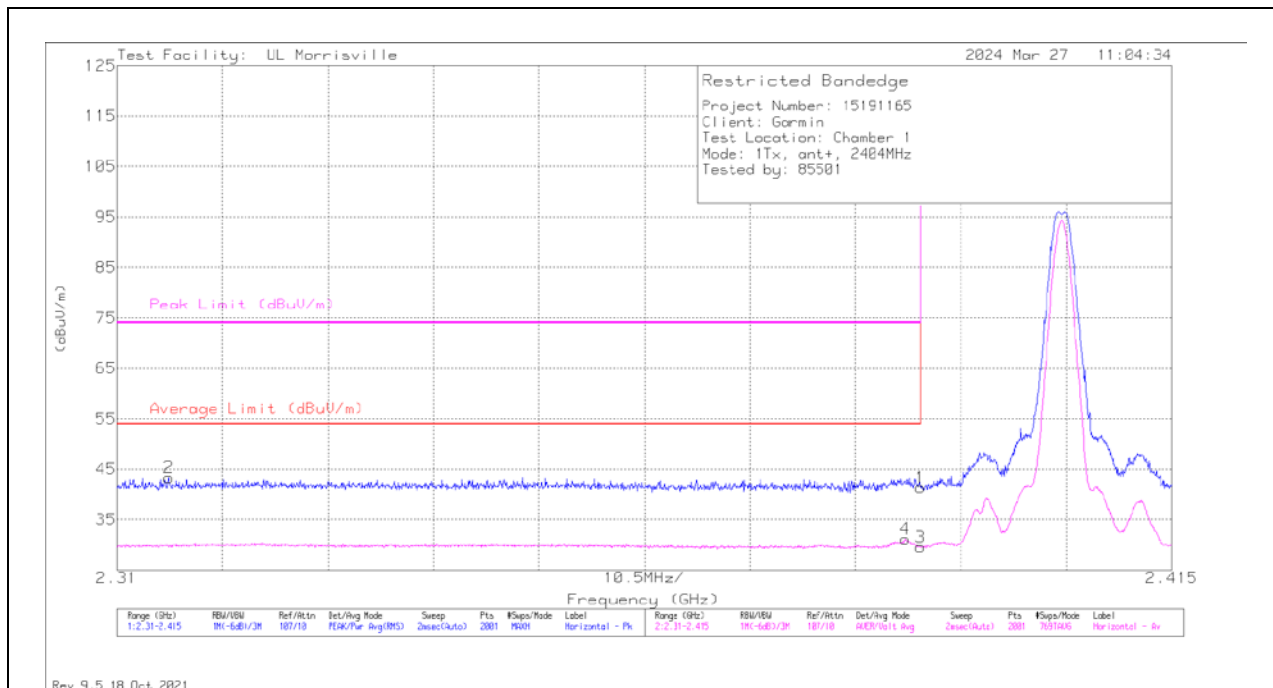
Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

BANDEDGE (LOW CHANNEL, 2404MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 2.38996	33.45	Pk	32.1	-24.2	0	41.35	-	-	74	-32.65	158	160	H
2	*** 2.31515	35.43	Pk	31.9	-24	0	43.33	-	-	74	-30.67	158	160	H
3	*** 2.38996	39.35	ADV	32.1	-24.2	-17.72	29.53	54	-24.47	-	-	158	160	H
4	*** 2.38849	40.99	ADV	32.1	-24.2	-17.72	31.17	54	-22.83	-	-	158	160	H

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

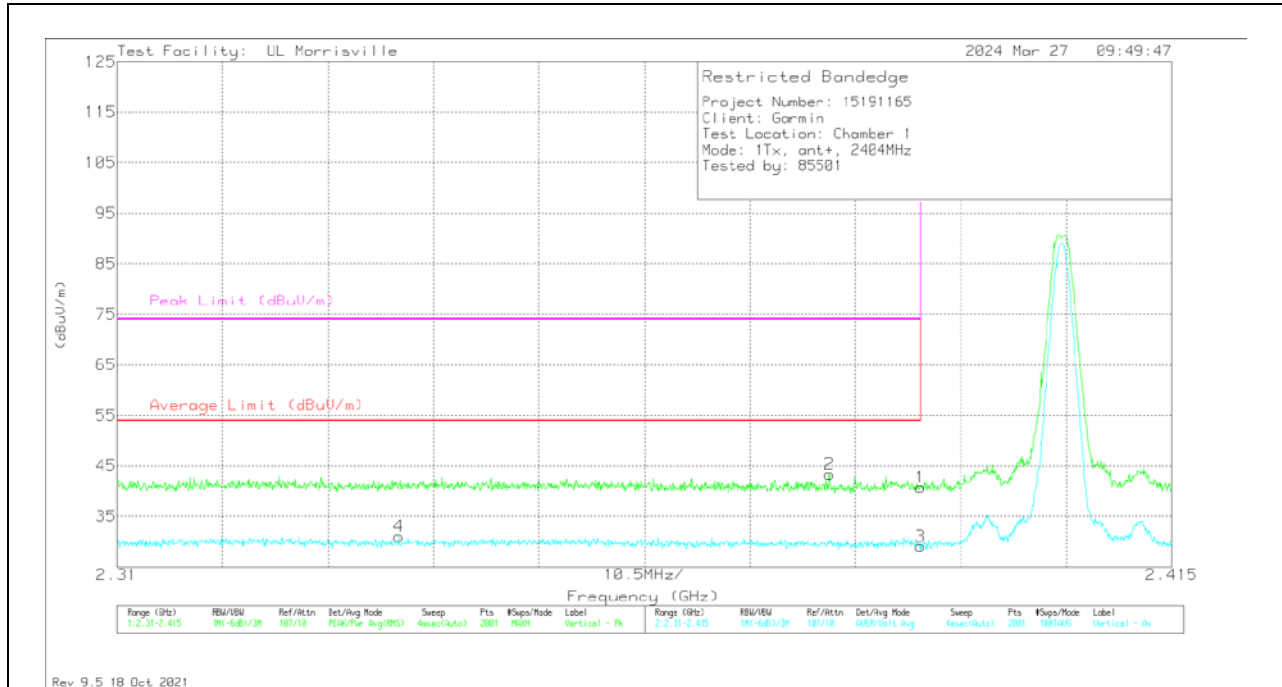
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 2.38996	32.82	Pk	32.1	-24.2	0	40.72	-	-	74	-33.28	57	233	V
2	*** 2.38093	35.32	Pk	32.1	-24.1	0	43.32	-	-	74	-30.68	57	233	V
3	*** 2.38996	38.89	ADV	32.1	-24.2	-17.72	29.07	54	-24.93	-	-	57	233	V
4	*** 2.33809	40.92	ADV	32	-24.1	-17.72	31.1	54	-22.9	-	-	57	233	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

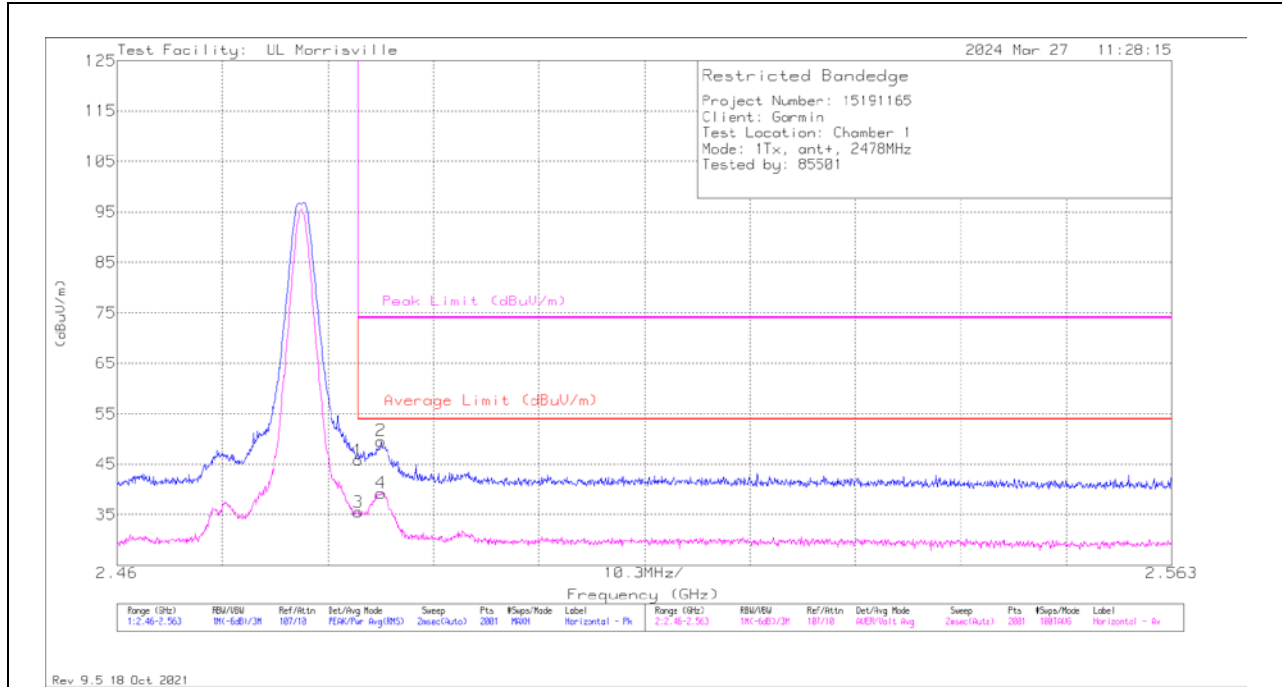
Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

BANDEDGE (HIGH CHANNEL, 2478MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	38.03	Pk	32.3	-24.5	0	45.83	-	-	74	-28.17	134	179	H
2	*** 2.48575	41.91	Pk	32.3	-24.6	0	49.61	-	-	74	-24.39	134	179	H
3	* ** 2.48354	45.49	ADV	32.3	-24.5	-17.72	35.57	54	-18.43	-	-	134	179	H
4	* ** 2.48575	49.32	ADV	32.3	-24.6	-17.72	39.3	54	-14.7	-	-	134	179	H

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

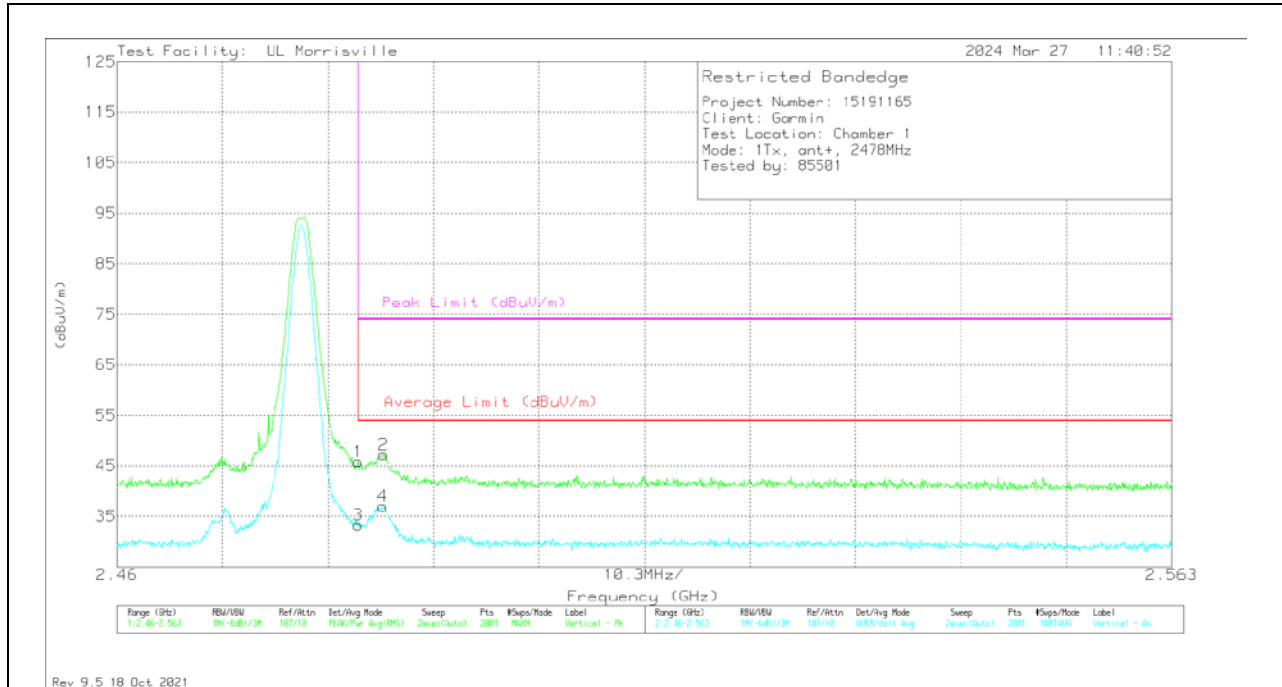
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	38.03	Pk	32.3	-24.5	0	45.83	-	-	74	-28.17	248	292	V
2	*** 2.48601	39.51	Pk	32.3	-24.6	0	47.21	-	-	74	-26.79	248	292	V
3	*** 2.48354	43.16	ADV	32.3	-24.5	-17.72	33.24	54	-20.76	-	-	248	292	V
4	*** 2.48596	47.08	ADV	32.3	-24.6	-17.72	37.06	54	-16.94	-	-	248	292	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

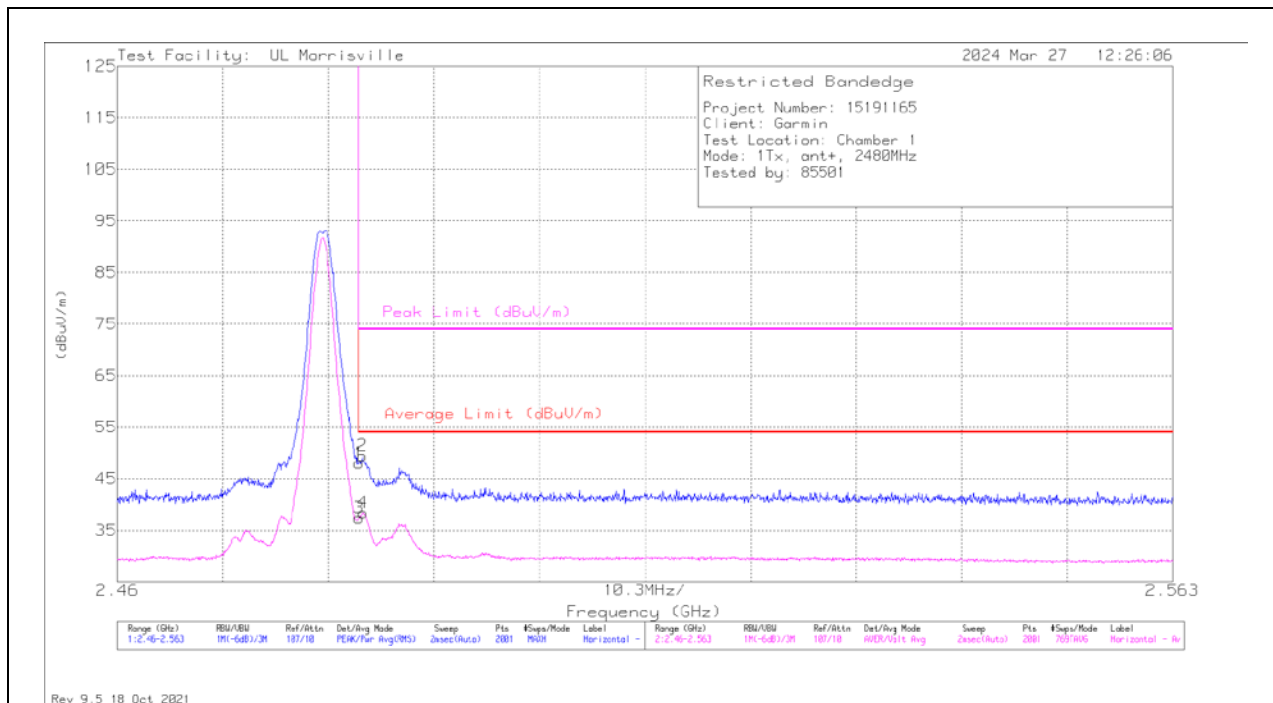
Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

BANDEDGE (HIGH CHANNEL, 2480MHz)

HORIZONTAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	40.21	Pk	32.3	-24.5	0	48.01	-	-	74	-25.99	135	281	H
2	*** 2.4839	41.69	Pk	32.3	-24.5	0	49.49	-	-	74	-24.51	135	281	H
3	*** 2.48354	47.31	ADV	32.3	-24.5	-17.72	37.39	54	-16.61	-	-	135	281	H
4	*** 2.484	48.35	ADV	32.3	-24.5	-17.72	38.43	54	-15.57	-	-	135	281	H

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

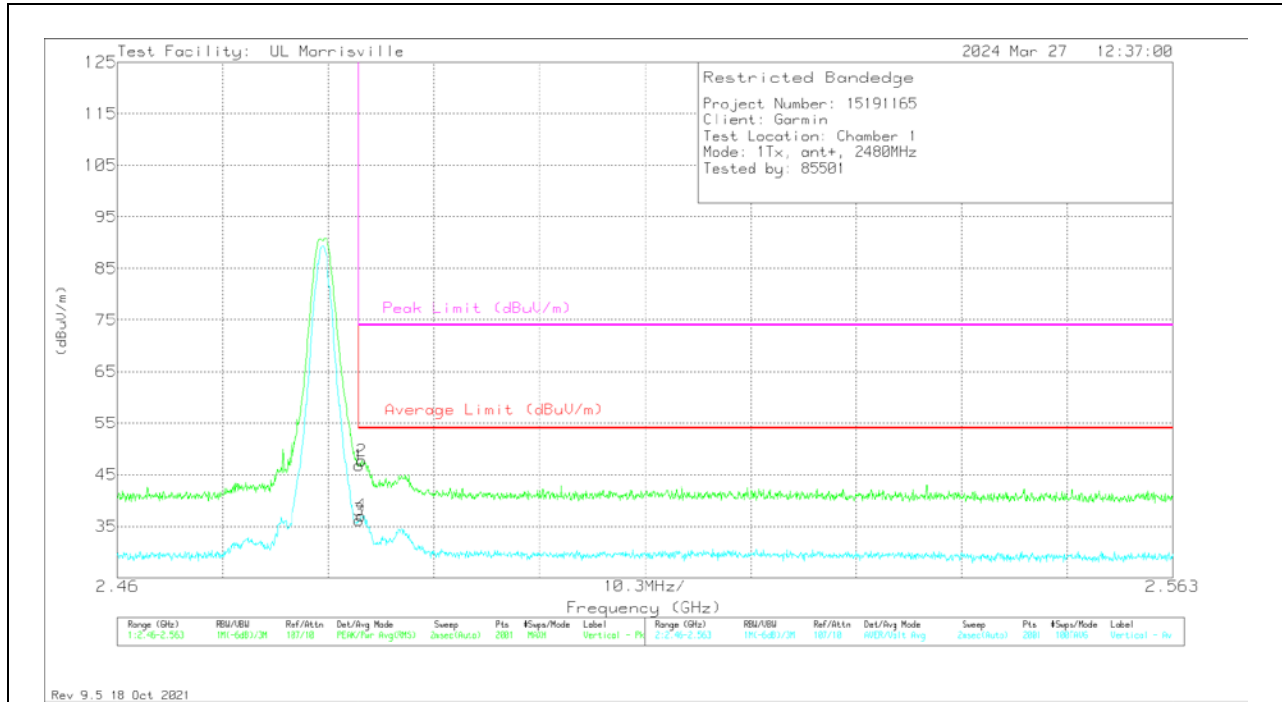
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

VERTICAL RESULT



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	38.98	Pk	32.3	-24.5	0	46.78	-	-	74	-27.22	232	380	V
2	** 2.48384	39.92	Pk	32.3	-24.5	0	47.72	-	-	74	-26.28	232	380	V
3	*** 2.48354	46.13	ADV	32.3	-24.5	-17.72	36.21	54	-17.79	-	-	232	380	V
4	*** 2.48379	47	ADV	32.3	-24.5	-17.72	37.08	54	-16.92	-	-	232	380	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

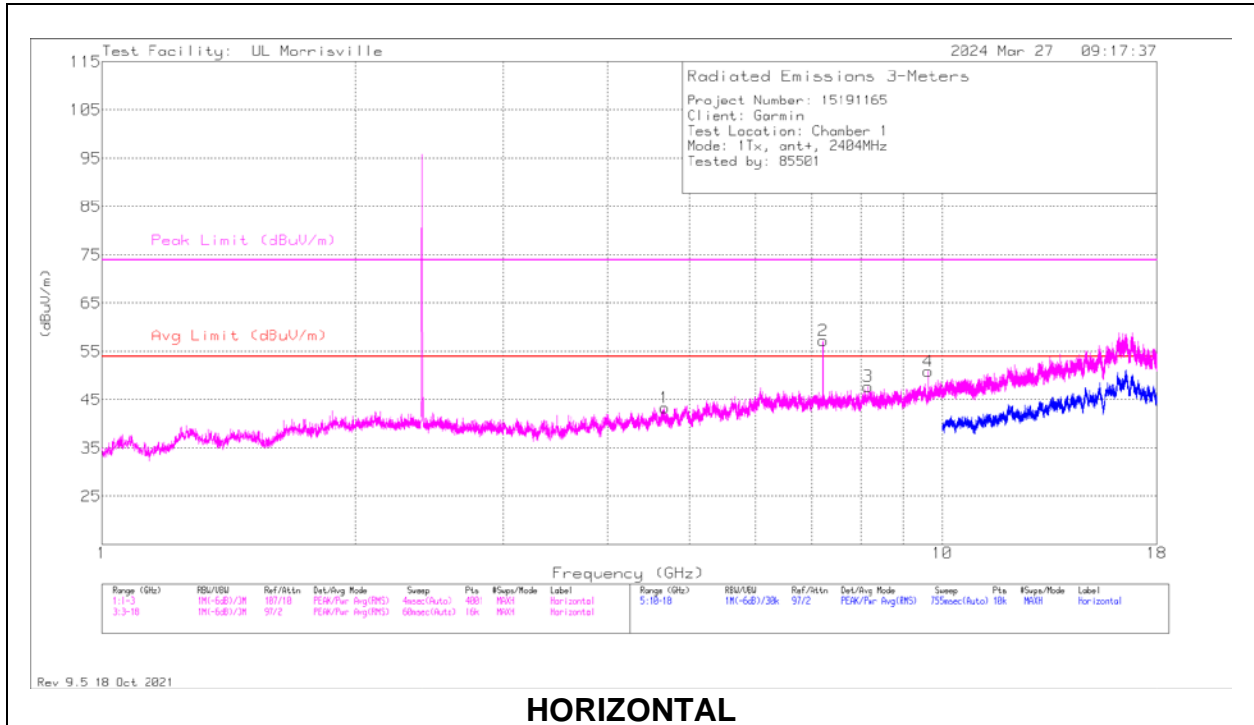
Pk - Peak detector

ADV - Linear Voltage Average

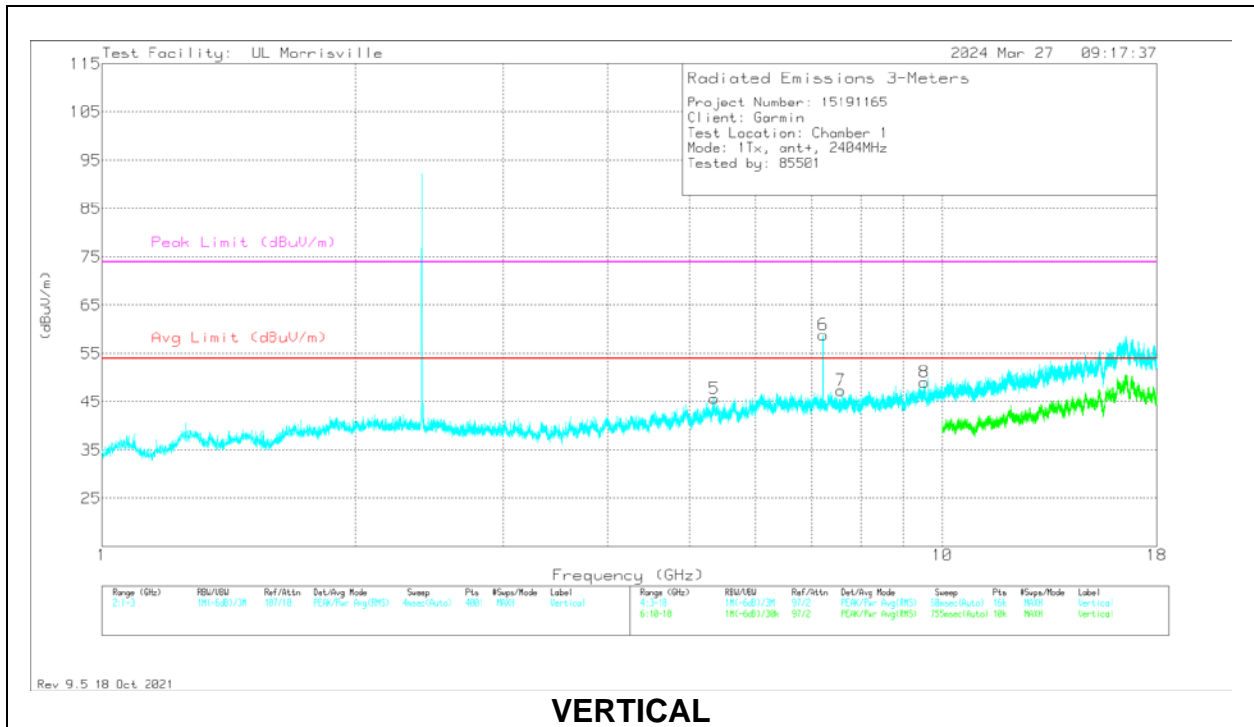
Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

HARMONICS AND SPURIOUS EMISSIONS

LOW CHANNEL



HORIZONTAL



VERTICAL

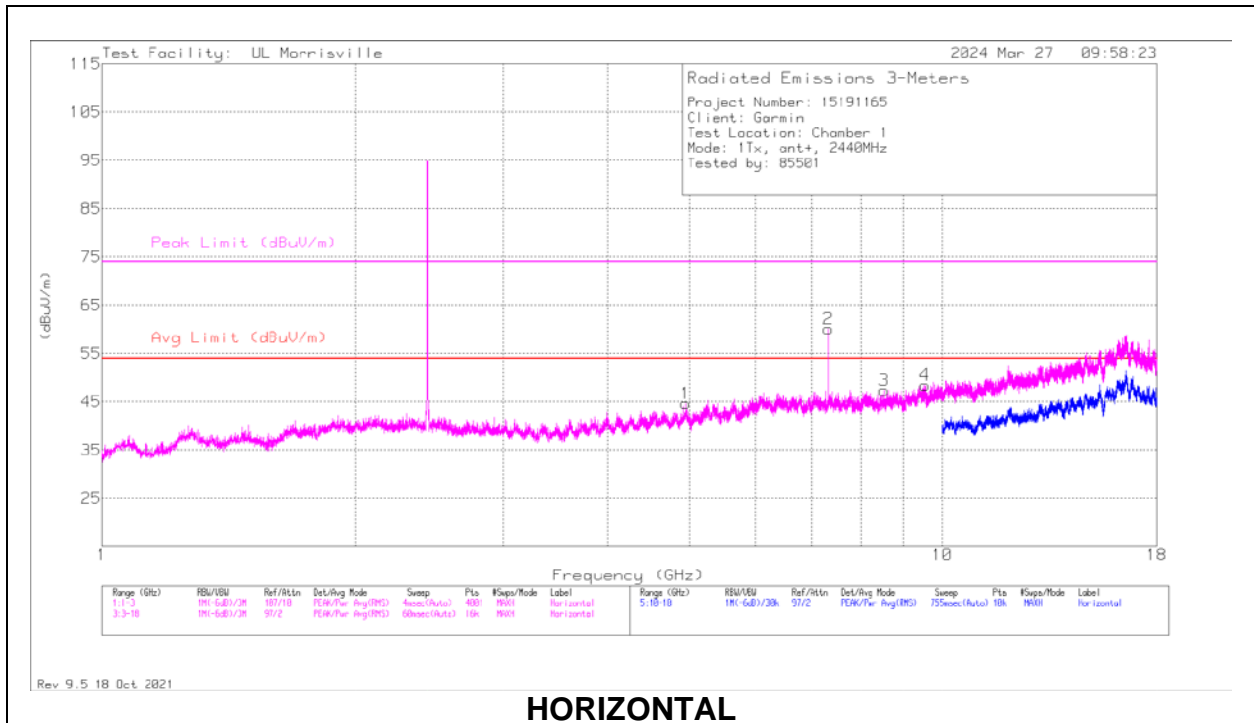
Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 4.67531	40.31	Pk	34.2	-31.1	43.41	54	-10.59	74	-30.59	0-360	101	H
3	* ** 8.15156	38.16	Pk	35.8	-26.2	47.76	54	-6.24	74	-26.24	0-360	101	H
5	* ** 5.355	39.89	Pk	34.5	-28.7	45.69	54	-8.31	74	-28.31	0-360	200	V
7	* ** 7.57313	38.27	Pk	35.7	-26.6	47.37	54	-6.63	74	-26.63	0-360	101	V
6	7.21266	50.38	Pk	35.6	-27.1	58.88	-	-	-	-	0-360	101	V
2	7.21313	48.72	Pk	35.6	-27.1	57.22	-	-	-	-	0-360	200	H
8	9.525	37.68	Pk	36.6	-25.2	49.08	-	-	-	-	0-360	200	V
4	9.61781	39.75	Pk	36.7	-25.5	50.95	-	-	-	-	0-360	200	H

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

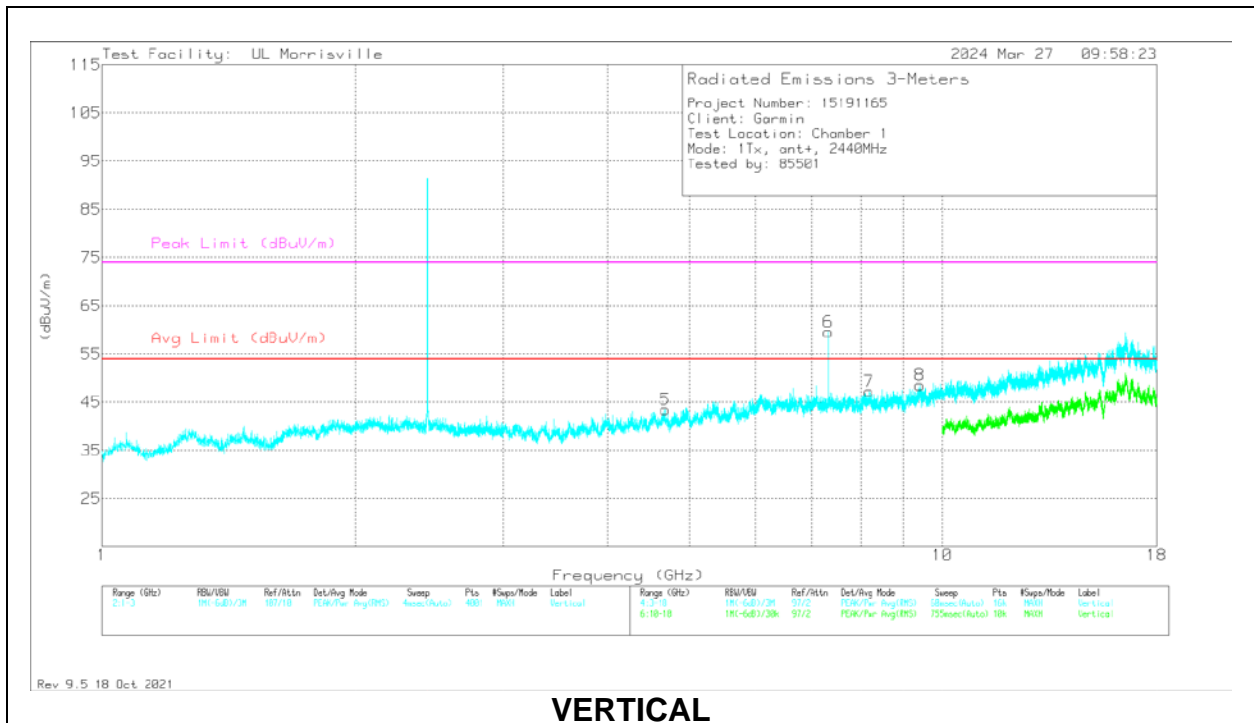
** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

MID CHANNEL



HORIZONTAL



VERTICAL

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 4.94719	41	Pk	34	-30.3	0	44.7	54	-9.3	74	-29.3	0-360	200	H
2	*** 7.31917	52.72	PK2	35.6	-26.7	0	61.62	-	-	74	-12.38	161	144	H
	*** 7.32063	46.38	ADV	35.6	-26.7	-17.72	37.56	54	-16.44	-	-	161	144	H
5	*** 4.68281	40.27	Pk	34.2	-31	0	43.47	54	-10.53	74	-30.53	0-360	101	V
6	*** 7.32076	50.36	PK2	35.6	-26.7	0	59.26	-	-	74	-14.74	124	106	V
	*** 7.32067	43.62	ADV	35.6	-26.7	-17.72	34.8	54	-19.2	-	-	124	106	V
7	*** 8.17688	37.82	Pk	35.8	-26.4	0	47.22	54	-6.78	74	-26.78	0-360	101	V
8	*** 9.40374	39.06	PK2	36.4	-25.3	0	50.16	-	-	74	-23.84	220	275	V
	*** 9.40244	26.23	ADV	36.4	-25.3	-17.72	19.61	54	-34.39	-	-	220	275	V
3	8.52281	37.55	Pk	35.8	-26	0	47.35	-	-	-	-	0-360	200	H
4	9.53906	36.79	Pk	36.6	-24.9	0	48.49	-	-	-	-	0-360	200	H

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

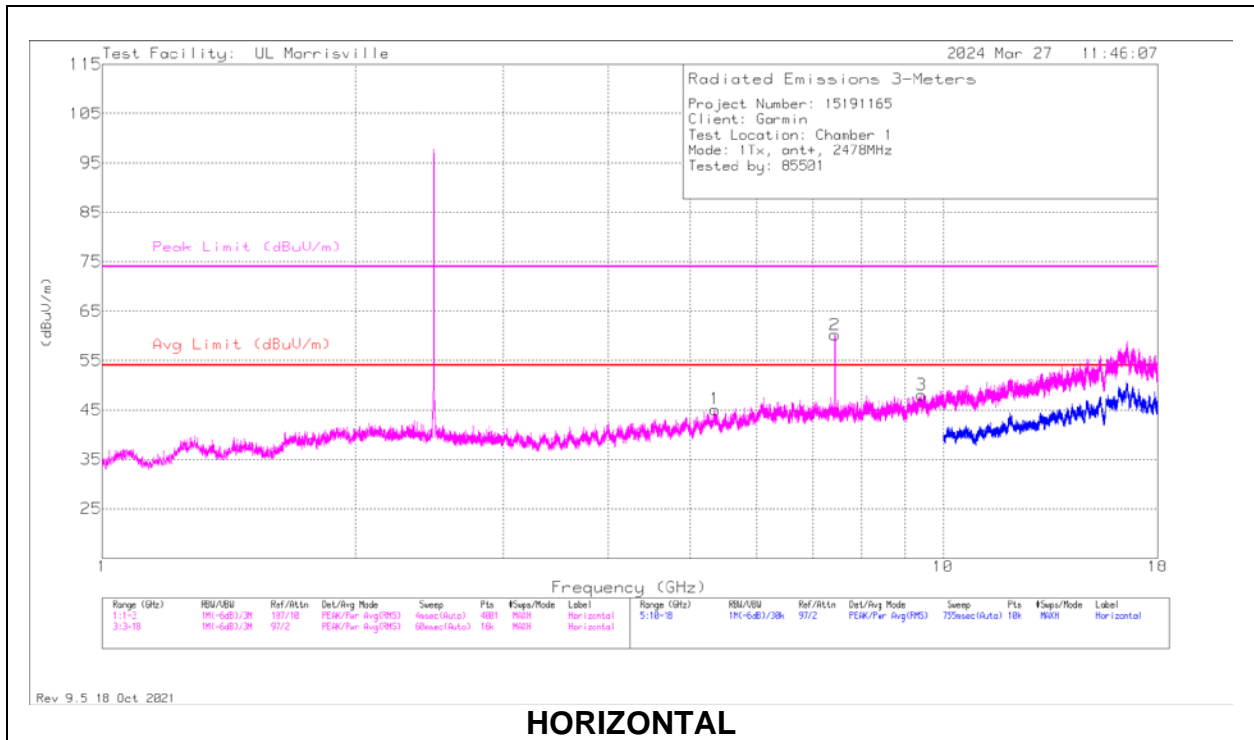
Pk - Peak detector

PK2 - Maximum Peak

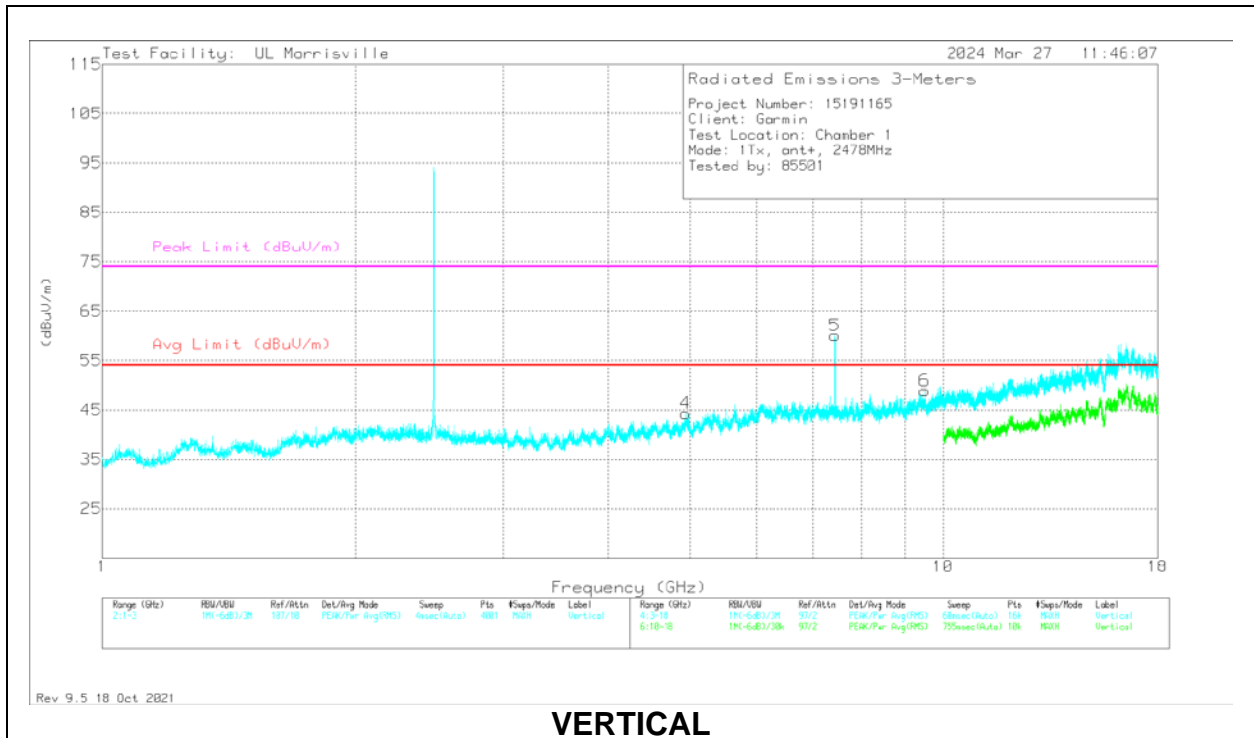
ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

HIGH CHANNEL



HORIZONTAL



VERTICAL

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	206211 (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	*** 5.35875	39.31	Pk	34.5	-28.7	0	45.11	54	-8.89	74	-28.89	0-360	200	H
2	*** 7.43326	52.85	PK2	35.7	-26.8	0	61.75	-	-	74	-12.25	161	136	H
	*** 7.43473	46.67	ADV	35.7	-26.8	-17.72	37.85	54	-16.15	-	-	161	136	H
3	*** 9.43438	38.65	PK2	36.5	-26	0	49.15	-	-	74	-24.85	67	182	H
	*** 9.43349	25.29	ADV	36.5	-25.9	-17.72	18.17	54	-35.83	-	-	67	182	H
4	*** 4.9425	40.72	Pk	34	-30.4	0	44.32	54	-9.68	74	-29.68	0-360	200	V
5	*** 7.43485	50.91	PK2	35.7	-26.8	0	59.81	-	-	74	-14.19	89	165	V
	*** 7.43466	44.02	ADV	35.7	-26.8	-17.72	35.2	54	-18.8	-	-	89	165	V
6	9.51188	37.81	Pk	36.5	-25.4	0	48.91	-	-	-	-	0-360	101	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

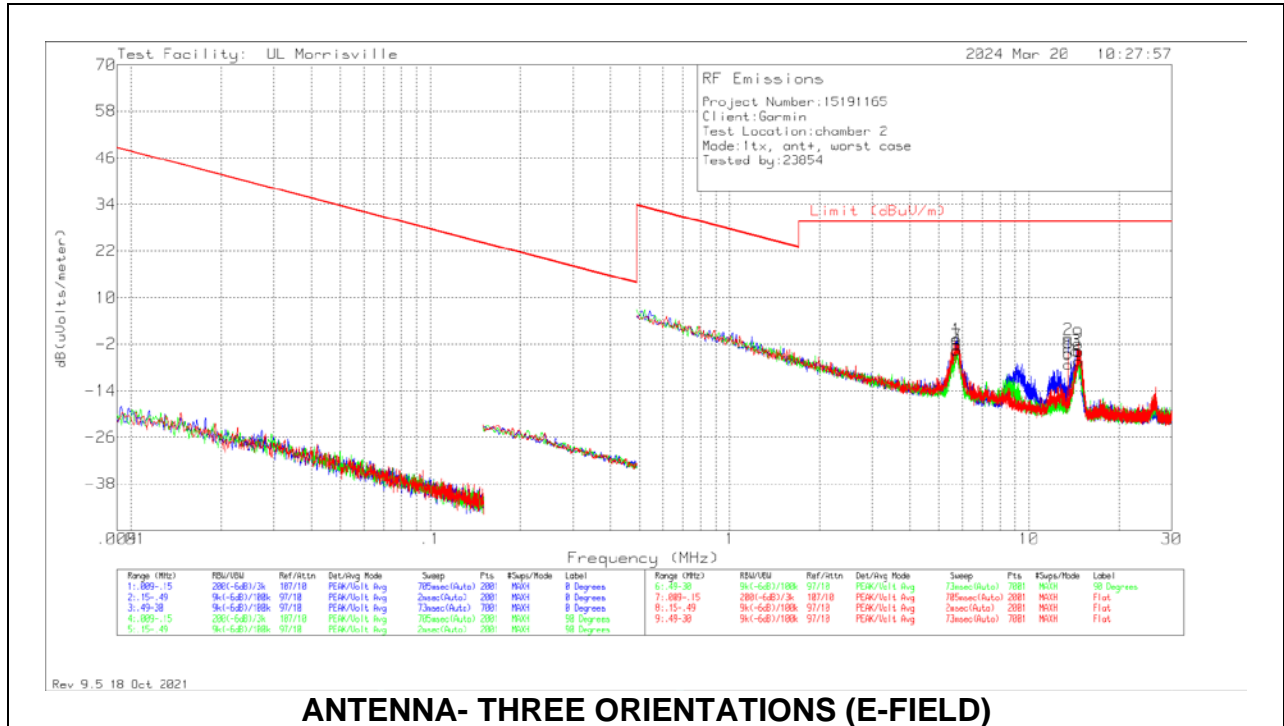
PK2 - Maximum Peak

ADV - Linear Voltage Average

Note: Operational duty cycle of 13% declared. This results in a duty cycle correction factor of $20\log(0.13) = -17.72$ dB.

10.2. WORST CASE SPURIOUS BELOW 30MHZ

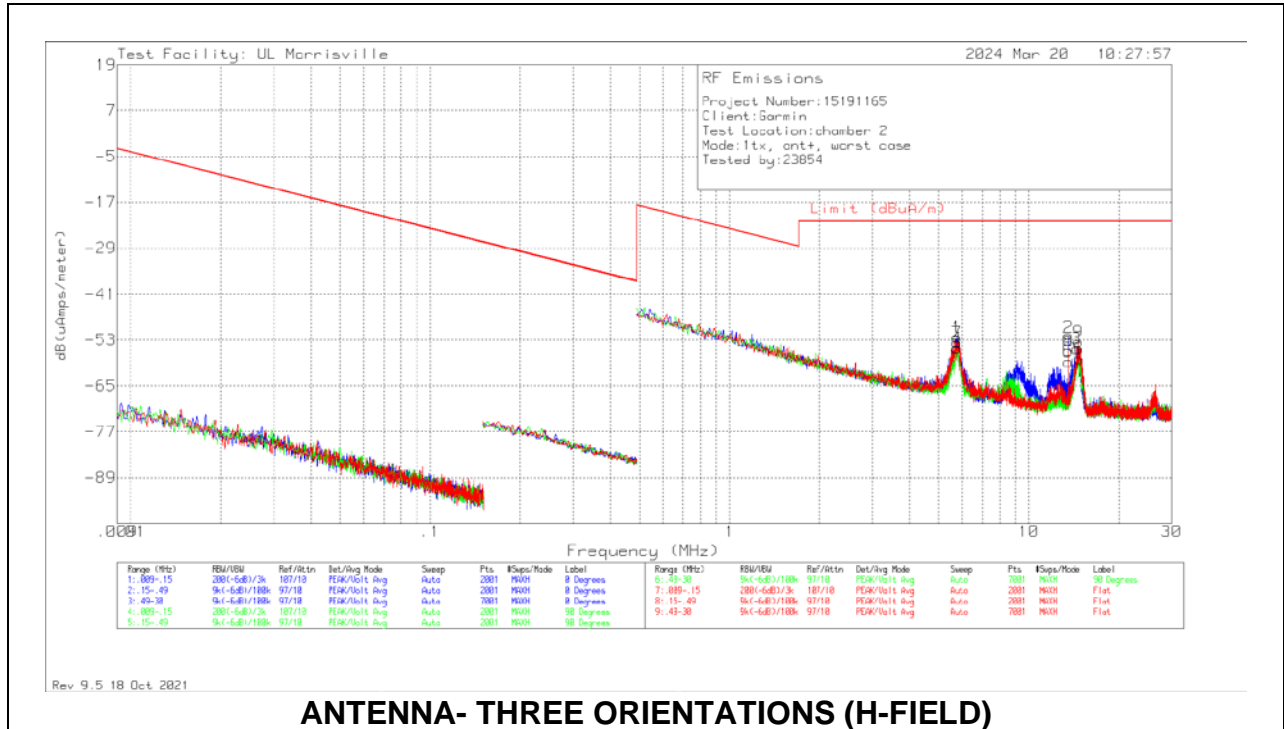
Note: All measurements were made at a test distance of 3 m. The measured data was extrapolated from the test distance (3m) to the specification distance (300 m from 9-490 kHz and 30 m from 490 kHz – 30 MHz) to clearly show the relative levels of fundamental and spurious emissions and demonstrate compliance 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*Log (test distance / specification distance).



ANTENNA- THREE ORIENTATIONS (E-FIELD)

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/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
1	5.7347	27.58	Pk	11.2	.4	-40	-0.82	29.54	-	-30.36	0-360	0 degs
4	5.7347	24.83	Pk	11.2	.4	-40	-3.57	29.54	-	-33.11	0-360	90 degs
7	5.7347	26.23	Pk	11.2	.4	-40	-2.17	29.54	-	-31.71	0-360	Flat
2	13.5596	27.88	Pk	10.7	.6	-40	-0.82	29.54	-	-30.36	0-360	0 degs
5	13.5596	21.44	Pk	10.7	.6	-40	-7.26	29.54	-	-36.8	0-360	90 degs
8	13.5596	24.44	Pk	10.7	.6	-40	-4.26	29.54	-	-33.8	0-360	Flat
3	14.44918	24.85	Pk	10.7	.7	-40	-3.75	29.54	-	-33.29	0-360	0 degs
9	14.59252	26.67	Pk	10.7	.7	-40	-1.93	29.54	-	-31.47	0-360	Flat
6	14.70214	22.19	Pk	10.7	.7	-40	-6.41	29.54	-	-35.95	0-360	90 degs

Pk - Peak detector

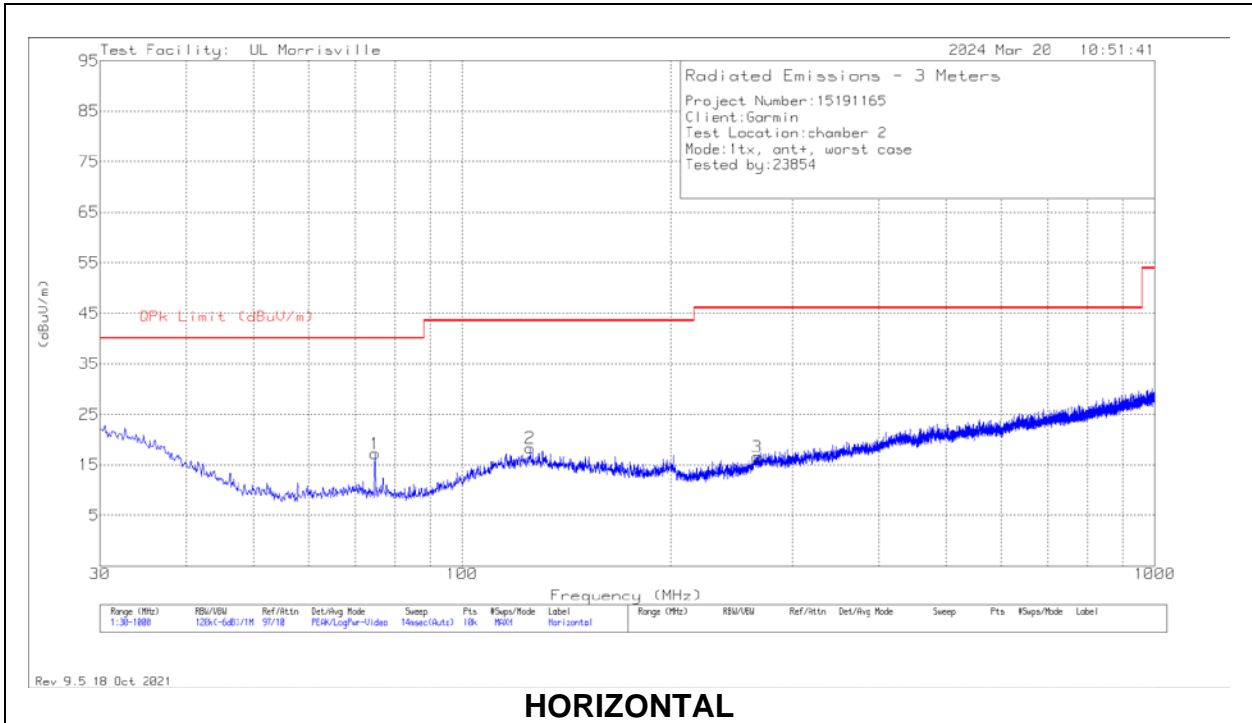


ANTENNA- THREE ORIENTATIONS (H-FIELD)

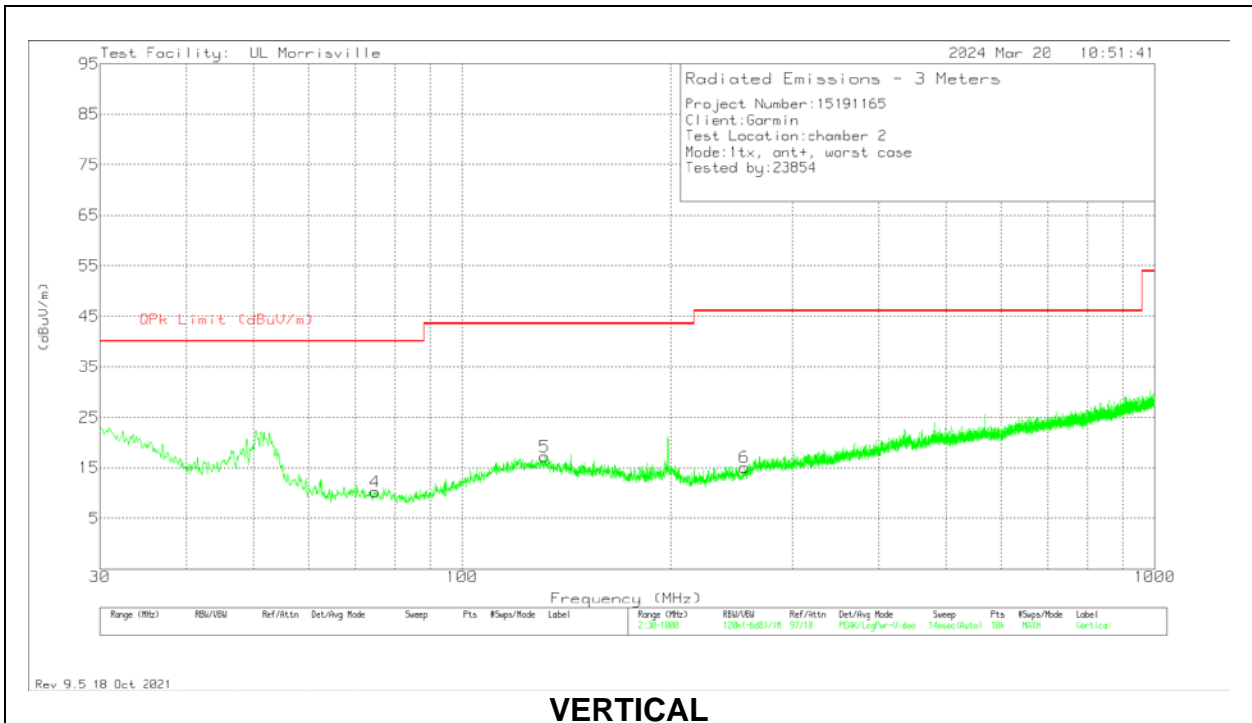
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	135144 (dBuV/m)	Gain/Loss (dB)	Dist. Corr. Factor (dB)	Corrected Reading dB(uAmps/meter)	QP/AV Limit (dBuA/m)	PK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Loop Angle
1	5.7347	27.58	Pk	-40.3	.4	-40	-52.32	-21.96	-	-30.36	0-360	0 degs
4	5.7347	24.83	Pk	-40.3	.4	-40	-55.07	-21.96	-	-33.11	0-360	90 degs
7	5.7347	26.23	Pk	-40.3	.4	-40	-53.67	-21.96	-	-31.71	0-360	Flat
2	13.5596	27.88	Pk	-40.8	.6	-40	-52.32	-21.96	-	-30.36	0-360	0 degs
5	13.5596	21.44	Pk	-40.8	.6	-40	-58.76	-21.96	-	-36.8	0-360	90 degs
8	13.5596	24.44	Pk	-40.8	.6	-40	-55.76	-21.96	-	-33.8	0-360	Flat
3	14.44918	24.85	Pk	-40.8	.7	-40	-55.25	-21.96	-	-33.29	0-360	0 degs
9	14.59252	26.67	Pk	-40.8	.7	-40	-53.43	-21.96	-	-31.47	0-360	Flat
6	14.70214	22.19	Pk	-40.8	.7	-40	-57.91	-21.96	-	-35.95	0-360	90 degs

Pk - Peak detector

10.3. WORST CASE SPURIOUS30-1000MHZ



HORIZONTAL



VERTICAL

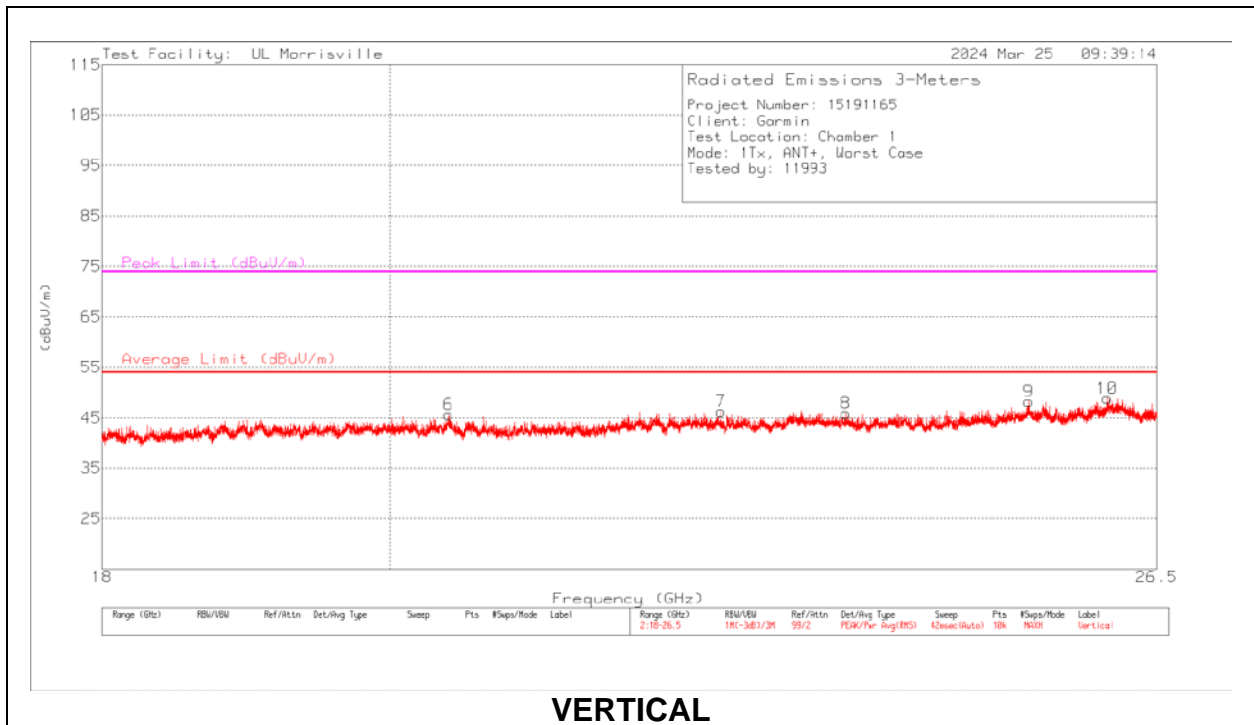
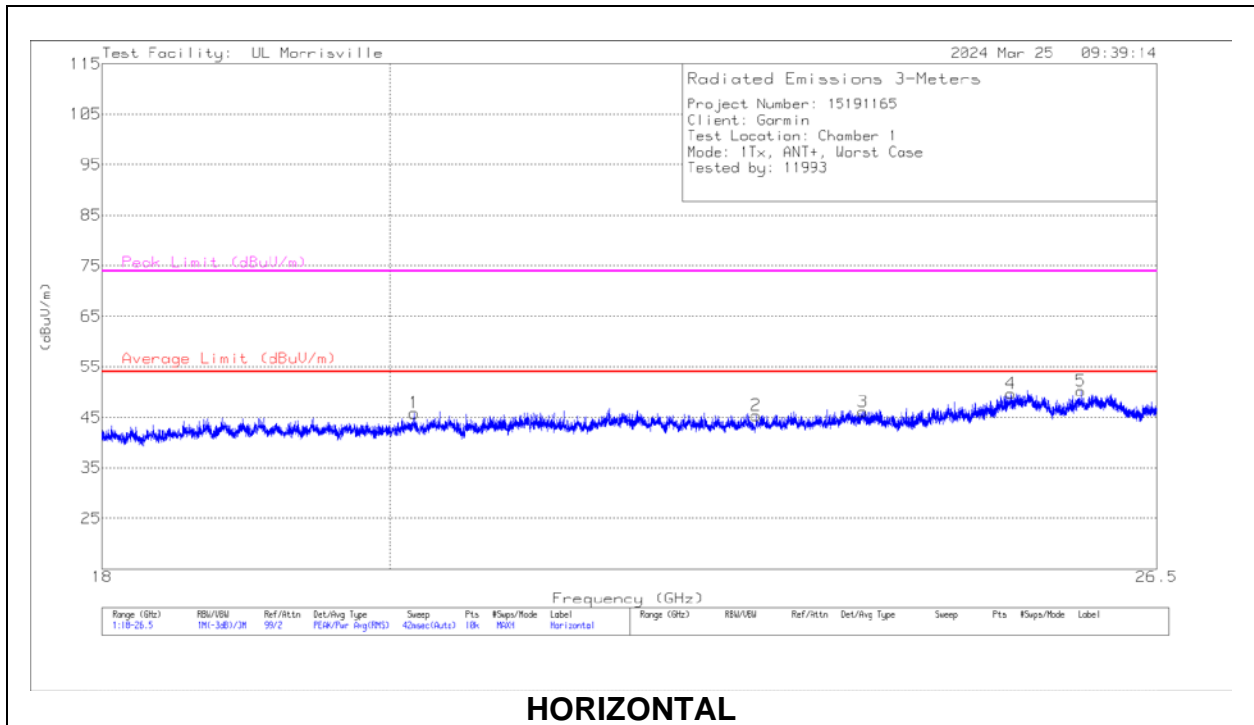
Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	159203 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	QPk Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	*** 74.814	33.76	Pk	14.5	-31.1	17.16	40	-22.84	0-360	299	H
2	*** 125.351	28.56	Pk	20.4	-30.6	18.36	43.52	-25.16	0-360	101	H
3	*** 266.777	26.63	Pk	19.5	-29.6	16.53	46.02	-29.49	0-360	101	H
4	*** 74.814	26.87	Pk	14.5	-31.1	10.27	40	-29.73	0-360	199	V
5	*** 131.656	27.75	Pk	20.1	-30.7	17.15	43.52	-26.37	0-360	299	V
6	*** 255.622	26.72	Pk	18.2	-29.8	15.12	46.02	-30.9	0-360	199	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

10.4. WORST CASE SPURIOUS 18-26 GHZ



Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	204704 (dB/m)	Gain/Loss (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	* ** 20.18003	50.12	Pk	33.4	-37.7	45.82	54	-8.18	74	-28.18	0-360	150	H
2	* ** 22.87936	48.93	Pk	34.1	-37.7	45.33	54	-8.67	74	-28.67	0-360	99	H
3	* ** 23.79047	48.76	Pk	34.4	-37	46.16	54	-7.84	74	-27.84	0-360	99	H
6	* ** 20.43756	49.71	Pk	33.6	-37.7	45.61	54	-8.39	74	-28.39	0-360	151	V
7	* ** 22.58614	50.01	Pk	34.3	-38	46.31	54	-7.69	74	-27.69	0-360	300	V
8	* ** 23.64514	48.64	Pk	34.6	-37.4	45.84	54	-8.16	74	-28.16	0-360	151	V
4	25.12059	50.93	Pk	35.6	-36.8	49.73	-	-	-	-	0-360	99	H
9	25.28462	49.18	Pk	35.7	-36.6	48.28	-	-	-	-	0-360	151	V
5	25.77332	51.03	Pk	35.3	-36.1	50.23	-	-	-	-	0-360	99	H
10	26.0232	49.8	Pk	35.3	-36.2	48.9	-	-	-	-	0-360	151	V

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

** - indicates frequency in Taiwan NCC LP0002 Restricted Band

Pk - Peak detector

11. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)
RSS-Gen 8.8

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

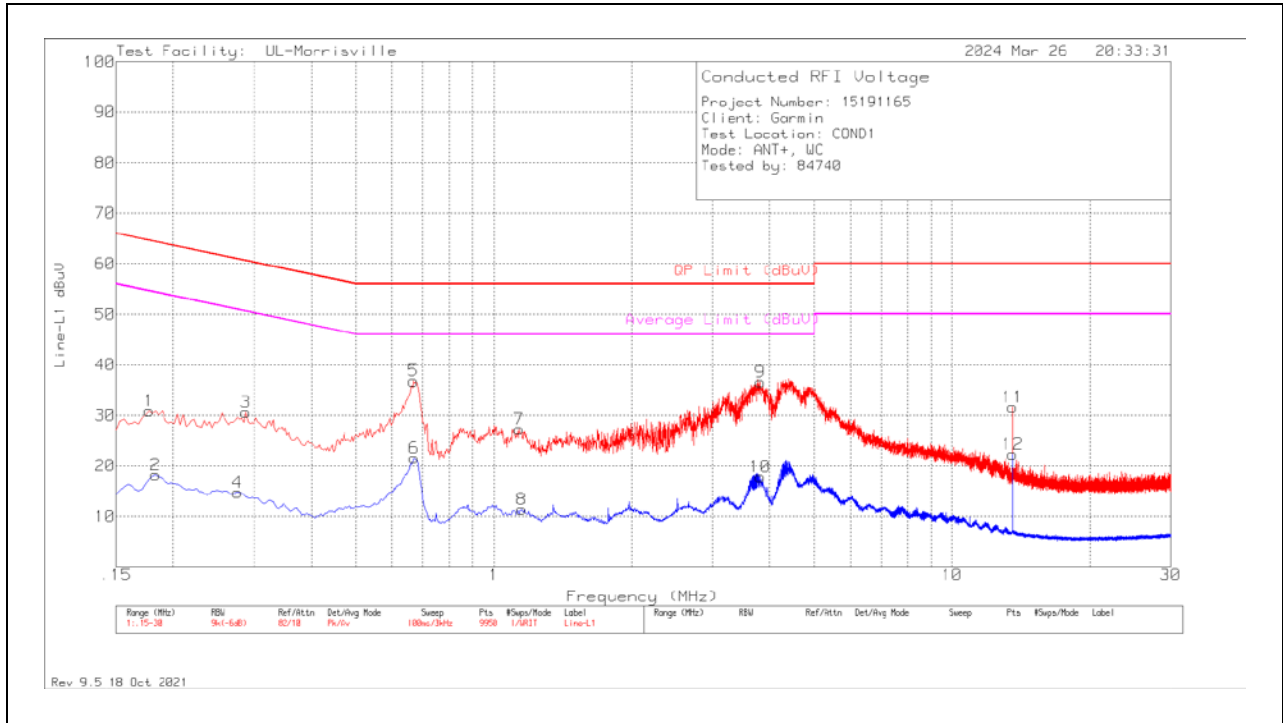
TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.10.

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

Line conducted data is recorded for both lines.

11.1. AC POWER LINE LINE 1 RESULTS

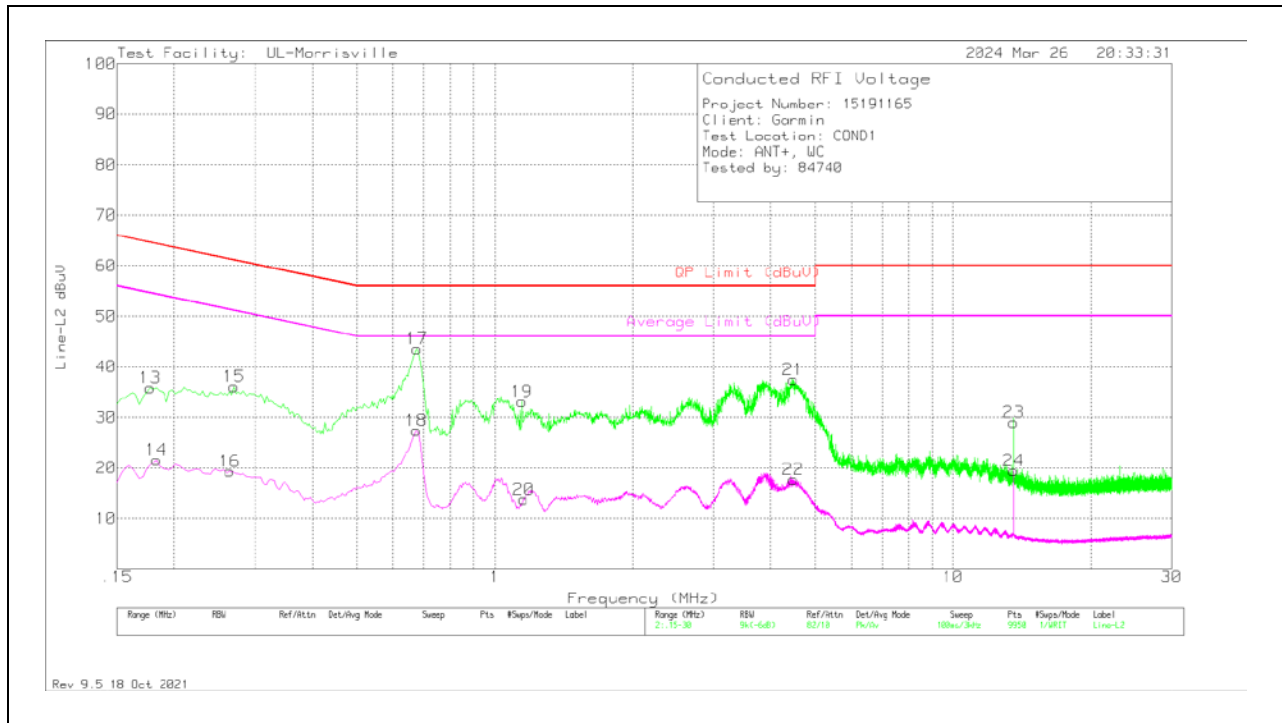


Range 1: Line-L1 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
1	.177	20.8	Pk	.3	9.8	30.9	64.63	-33.73	-	-
2	.183	8.11	Av	.3	9.8	18.21	-	-	54.35	-36.14
3	.288	20.68	Pk	.2	9.8	30.68	60.58	-29.9	-	-
4	.276	4.78	Av	.2	9.8	14.78	-	-	50.94	-36.16
5	.669	26.88	Pk	.1	9.8	36.78	56	-19.22	-	-
6	.672	11.63	Av	.1	9.8	21.53	-	-	46	-24.47
7	1.134	17.38	Pk	.1	9.8	27.28	56	-28.72	-	-
8	1.149	1.46	Av	.1	9.8	11.36	-	-	46	-34.64
9	3.819	26.58	Pk	.1	9.9	36.58	56	-19.42	-	-
10	3.813	7.81	Av	.1	9.9	17.81	-	-	46	-28.19
11	13.563	21.45	Pk	.2	10	31.65	60	-28.35	-	-
12	13.56	12.13	Av	.2	10	22.33	-	-	50	-27.67

Pk - Peak detector
 Av - Average detection

LINE 2 RESULTS



Range 2: Line-L2 .15 - 30MHz

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	LISN VDF (dB)	Cbl/Limiter (dB)	Corrected Reading dBuV	QP Limit (dBuV)	Margin (dB)	Average Limit (dBuV)	Margin (dB)
13	.177	25.78	Pk	.3	9.8	35.88	64.63	-28.75	-	-
14	.183	11.48	Av	.3	9.8	21.58	-	-	54.35	-32.77
15	.27	26.1	Pk	.2	9.8	36.1	61.12	-25.02	-	-
16	.264	9.3	Av	.2	9.8	19.3	-	-	51.3	-32
17	.678	33.7	Pk	.1	9.8	43.6	56	-12.4	-	-
18	.675	17.46	Av	.1	9.8	27.36	-	-	46	-18.64
19	1.146	23.19	Pk	.1	9.8	33.09	56	-22.91	-	-
20	1.158	3.87	Av	.1	9.8	13.77	-	-	46	-32.23
21	4.482	27.43	Pk	.1	9.9	37.43	56	-18.57	-	-
22	4.482	7.71	Av	.1	9.9	17.71	-	-	46	-28.29
23	13.563	18.8	Pk	.2	10	29	60	-31	-	-
24	13.563	9.24	Av	.2	10	19.44	-	-	50	-30.56

Pk - Peak detector

Av - Average detection

12. SETUP PHOTOS

Please refer to R15191165-EP1 for setup photos

END OF TEST REPORT