

CERTIFICATION TEST REPORT

Report Number. : S-4791467516-FR1V3

Applicant : Kohler Ventures, Inc..
Alma St, Palo Alto, CA 94301 USA

Model : KV010103

FCC ID : 2BMN9-KV010103

EUT Description : BLE remote controller

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

Date Of Issue:

2025-09-19

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Revision History

Rev.	Issue Date	Revisions	Revised By
V1	2025-08-05	Initial issue	Hyein Lee
V2	2025-09-15	Updated to address TCB's question	Hyein Lee
V2	2025-09-19	Updated to address TCB's question	Hyein Lee

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: Kohler Ventures, Inc..
EUT DESCRIPTION: BLE remote controller
MODEL NUMBER: KV010103
SERIAL NUMBER: #Sample3(RADIATED), #Sample9(CONDUCTED)
DATE TESTED: 2024-10-29 ~ 2024-12-10

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
47 CFR Part 15 Subpart C	Complies

UL KOREA LTD. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL KOREA LTD. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL KOREA LTD. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL KOREA LTD. 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 IAS, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL KOREA LTD. By:



Seokhwan Hong
Suwon Lab Engineer
UL KOREA LTD.

Tested By:



Hyein Lee
Suwon Lab Engineer
UL KOREA LTD.

2. TEST METHODOLOGY

1. FCC 47 CFR Part 2.
2. FCC 47 CFR Part 15.
3. KDB 558074 D01 15.247 Meas Guidance v05r02.
4. ANSI C63.10-2020.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 218 Maeyeong-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675, Korea. Line conducted emissions are measured only at the 218 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

218 Maeyeong-ro	
☒	Chamber 1(3m semi-anechoic chamber)
☒	Chamber 2(3m semi-anechoic chamber)
☒	Chamber 3(3m semi-anechoic chamber)
☐	Chamber 4(3m Full-anechoic chamber)
☐	Chamber 5(3m Full-anechoic chamber)

UL KOREA LTD. is accredited by IAS, Laboratory Code TL-637. The full scope of accreditation can be viewed at <https://www.iasonline.org/wp-content/uploads/2017/05/TL-637-cert-New.pdf>.

4. DECISION RULES AND MEASUREMENT UNCERTAINTY

4.1. METROLOGICAL TRACEABILITY

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

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

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

4.3. MEASUREMENT UNCERTAINTY

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

PARAMETER	UNCERTAINTY
RF Output Power	0.69 dB
Power Spectral Density	1.4 dB
Occupied Bandwidth	0.04 %
Conducted Spurious Emissions	1.4 dB
Conducted Disturbance, 0.15 to 30 MHz	1.84 dB
Radiated Disturbance, 9 kHz to 30 MHz	2.41 dB
Radiated Disturbance, 30 MHz to 1 GHz	3.69 dB
Radiated Disturbance, 1 GHz to 18 GHz	5.18 dB
Radiated Disturbance, Above 18 GHz	5.07 dB

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

4.4. DECISION RULES

Decision rule for statement(s) of conformity is based on Clause 4.4.3 in IEC Guide 115:2023.

5. EQUIPMENT UNDER TEST

5.1. EUT DESCRIPTION

The EUT is a BLE remote controller.
This test report addresses the DTS (BLE) operational mode.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak and average conducted output power as follows:

Frequency Range[MHz]	Mode	Power Mode	Output Power [dBm]	Output Power [mW]
2 402 ~ 2 480	1 Mbps (255 pkt)	Peak	7.170	5.21
		Average	6.457	4.42

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

The chip antenna was Permanently attached.
Therefore, this E.U.T Complies with the requirement of §15.203.

The radio utilizes a internal antenna, with a maximum gain of: 1.25 dBi

“BLE Antenna” as indicated in antenna specification are written as ANT1 in this report.

5.4. WORST-CASE CONFIGURATION AND MODE

The fundamentals of the EUT were investigated in three orthogonal orientations X, Y and Z. It was determined that below table's orientation was the worst-case orientation.

ANT1
Y

Radiated tests were performed with laptop connected to test jig as the worst-case configuration. Radiated harmonics spurious 1~18 GHz Low/Mid/High channels, 18-26GHz were performed with the EUT set at the 1Tx mode. Radiated emission below 1GHz and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

For Radiated band-edge and spurious test, tests were performed on 1Tx mode. All radiated tests were performed with the laptop attached to a test jig under worst-case conditions.

Power verification

The output power was investigated at the single supported data rate of 1 Mbps (255 pkt), which represents the worst-case packet length for this device. All tests were performed in this mode as it is the only operational data rate supported by the device.

Symbol Rate [Ms/s]	Mode	Freq. [MHz]	Conducted Burst Avg [dBm]
1	1 Mbps 37 pkt ANT1	2 402	5.759
		2 440	6.343
		2 480	5.738
	1 Mbps 255 pkt ANT1	2 402	5.670
		2 440	6.457
		2 480	5.627

5.5. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Test Zig	OHSUNG ELECTRONICS	Interface Board R0	-	N/A
Laptop	LG	15UD490	001QCFT576955	N/A

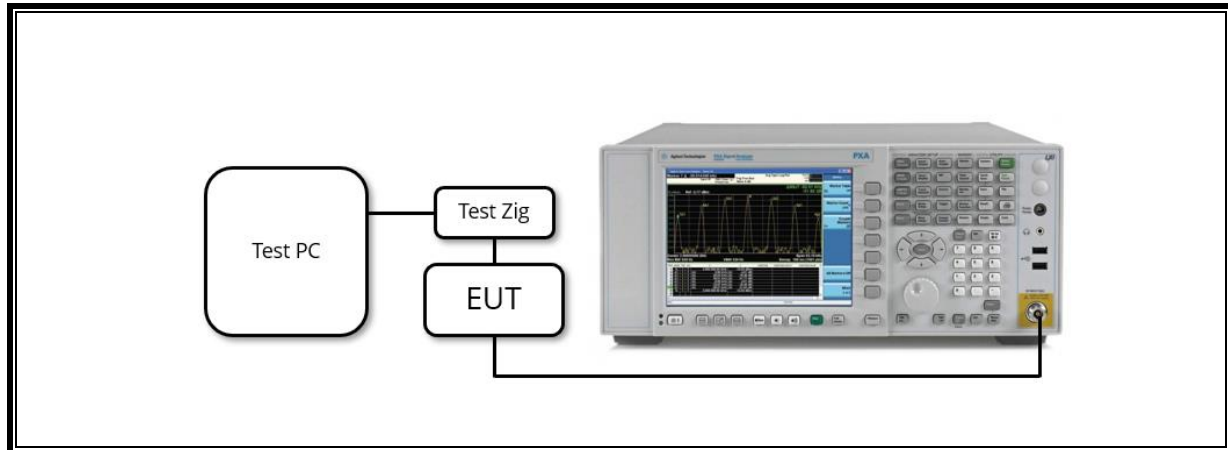
I/O CABLE

I/O Cable List						
Cable No.	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB to TTL serial UART	1	USB	Shielded	180 cm	N/A

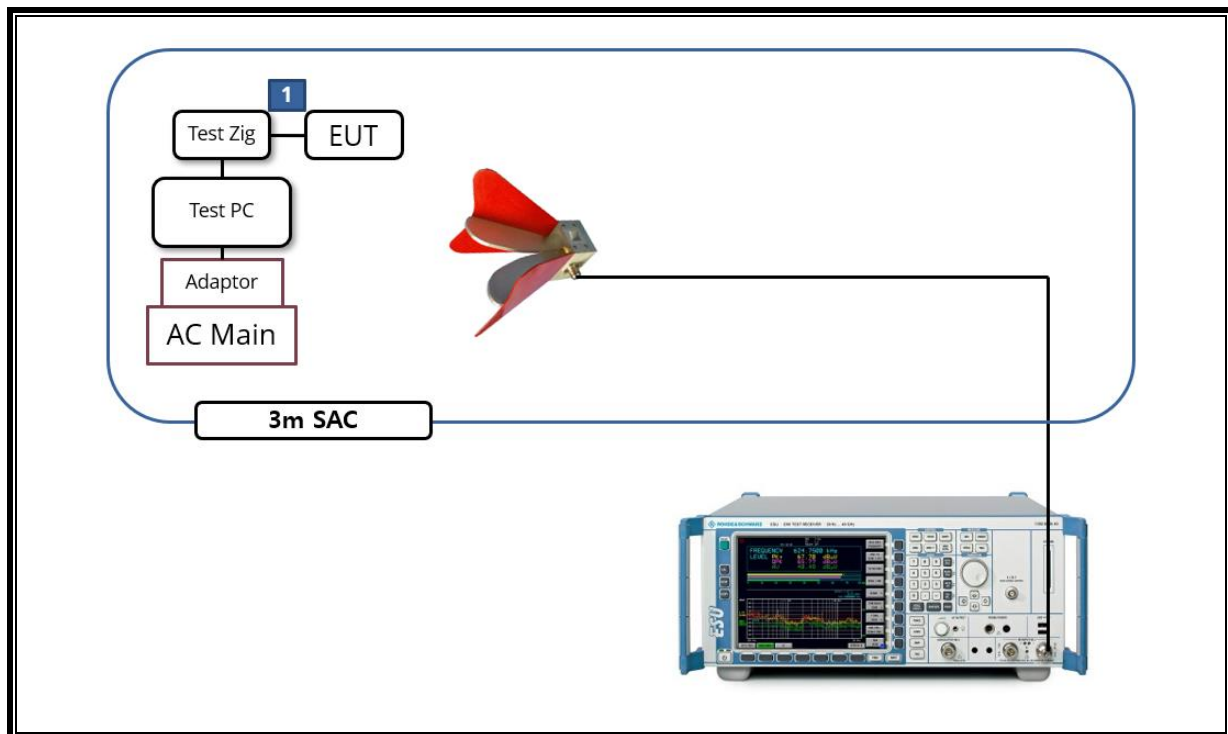
TEST SETUP

The EUT is a stand-alone unit during the tests.
Test software exercised the EUT to enable BLE mode.

SETUP DIAGRAM FOR TESTS (CONDUCTED TEST SETUP)



SETUP DIAGRAM FOR TESTS (RADIATED TEST SETUP)



6. MEASUREMENT METHOD

6 dB BW : ANSI C63.10-2020, Section 11.8.2 Option 2

OUTPUT POWER : ANSI C63.10-2020, Section 11.9.1.1 RBW $\geq$ DTS bandwidth

POWER SPECTRAL DENSITY : ANSI C63.10-2020, Section 11.10.2 Method PKPSD (peak PSD)

Out-of-band Emissions (Conducted) : ANSI C63.10-2020, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Non-restricted Bands: ANSI C63.10-2020, Section 11.11 Emissions in nonrestricted frequency bands

Out-of-band Emissions in Restricted Bands : ANSI C63.10-2020, Section 11.12 Emissions in restricted frequency bands

7. TEST AND MEASUREMENT EQUIPMENT

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

Test Equipment List				
Description	Manufacturer	Model	S/N	Cal Due
Antenna, Loop, 9kHz-30MHz	R&S	HFH2-Z2	100418	2025-09-07
Antenna, Bilog, 30MHz-1GHz	SCHWARZBECK	VULB 9163	750	2026-07-30
Antenna, Horn, 18 GHz	ETS	3117	00168717	2026-07-17
Antenna, Horn, 40 GHz	ETS	3116C	00166155	2026-07-23
Preamplifier	ETS	3116C-PA	00168841	2025-07-25
Preamplifier, 1000 MHz	Sonoma	310N	341282	2025-07-22
Preamplifier, 18 GHz	Miteq	AFS42-00101800-25-S-42	2029169	2025-07-23
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54170614	2025-07-24
Spectrum Analyzer, 44 GHz	Agilent / HP	N9030A	MY54490312	2025-01-03
Spectrum Analyzer, 44 GHz	KEYSIGHT	N9040B	MY60080268	2025-01-03
Attenuator	PASTERNAK	PE7087-10	A001	2025-07-23
Attenuator	PASTERNAK	PE7087-10	A008	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100439	2025-07-23
EMI Test Receive, 40 GHz	R&S	ESU40	100457	2025-07-22
Low Pass Filter 5GHz	Micro-Tronics	LPS17541	009	2025-07-22
High Pass Filter 3GHz	Micro-Tronics	HPM17543	010	2025-07-22
UL Software				
Description	Manufacturer	Model	Version	
Radiated software	UL	UL EMC	Ver 9.5	

8. TEST RESULTS SUMMARY

FCC Part Section	Test Description	Test Limit	Test Condition	Test Result
15.247 (a)(2)	Occupied Bandwidth (6dB & 99%)	> 500kHz	Conducted	Complies
2.1051, 15.247(d)	Band Edge / Conducted Spurious Emission	-20 dBc		Complies
15.247 (b)(3)	TX conducted output power	< 30 dBm		Complies
15.247(e)	PSD	< 8 dBm/3kHz		Complies
15.205, 15.209	Radiated Spurious Emission	< 54dBuV/m(Av)	Radiated	Complies

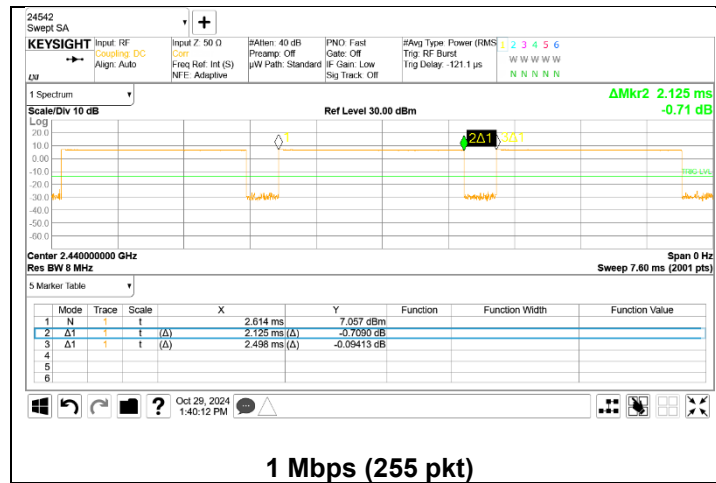
9. ANTENNA PORT TEST RESULTS

9.1. ON TIME AND DUTY CYCLE

LIMITS

None; for reporting purposes only.

Mode	On time [msec]	Period [msec]	Duty cycle x [Linear]	Duty Cycle [%]	Duty Cycle Correction Factor [dB]	1/T Minimum VBW [kHz]
2 400 ~ 2 483.5 MHz Bands						
1 Mbps [255 pkt]	2.125	2.498	0.8507	85.07	0.70	0.471



Note. Radiated spurious emissions were measured with the duty cycle reduction factor (per customer declaration) applied in accordance with FCC Part 15.35(c). For radiated band-edge measurements, the more restrictive duty cycle was applied to represent worst-case conditions.

9.2. 6 dB BANDWIDTH

LIMITS

6dB Bandwidth:

FCC §15.247 (a) (2)

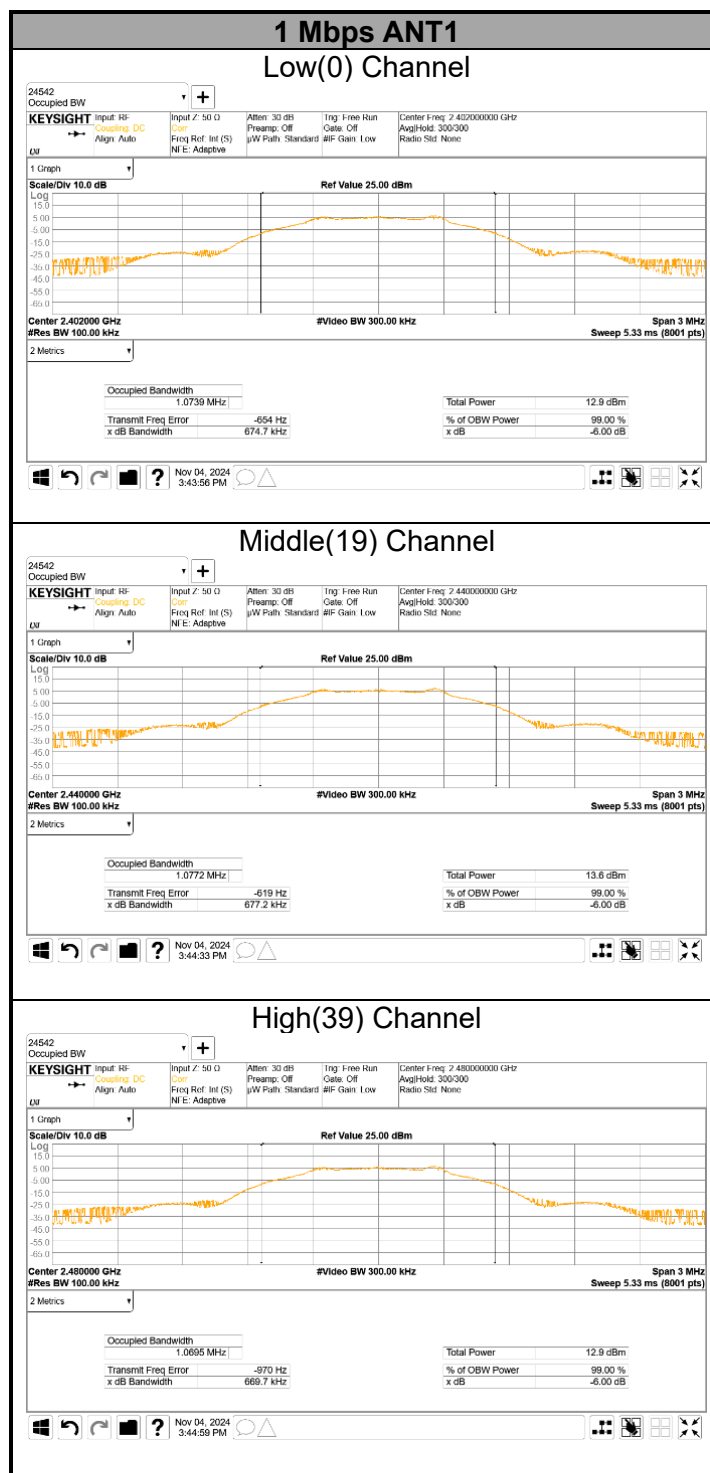
The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS

9.2.1. TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	6 dB Bandwidth [kHz]	Minimum Limit [kHz]
1 Mbps (255 pkt)	ANT1	0	2 402	674.7	500.0
		19	2 440	677.2	
		39	2 480	669.7	
Worst				669.7	500.0

9.2.2. 6 dB BANDWIDTH PLOTS



9.3. OUTPUT POWER

LIMITS

FCC §15.247 (b) (3)

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

TEST PROCEDURE

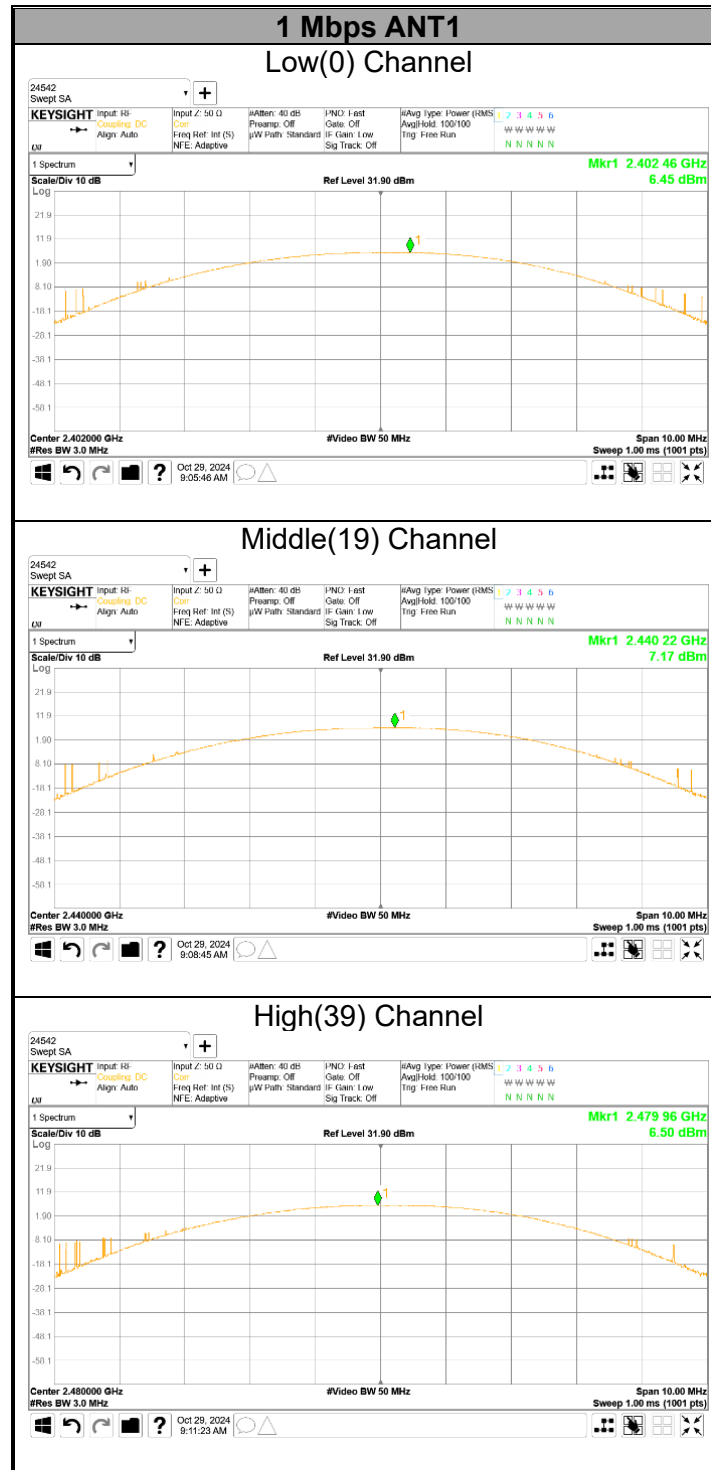
Peak power is measured using ANSI C63.10(2020) under section 11.9.1.1 utilizing spectrum analyzer(RBW $\geq$ DTS bandwidth).

RESULTS

9.3.1. TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	Peak Output Power [dBm]	Limit [dBm]	Margin [dB]
1 Mbps (255 pkt)	ANT1	0	2 402	6.45	30.00	-23.55
		19	2 440	7.17		-22.83
		39	2 480	6.50		-23.50
		Worst		7.17		-22.83

9.3.2. PEAK POWER PLOTS



9.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

Measurements perform using a wideband RF frame average power sensor.
The cable assembly insertion loss and duty cycle correction factor were entered as an offset in the power meter to allow for direct reading of power.

RESULTS

9.4.1. TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	Average Output Power [dBm]	Average Output Power [mW]
1 Mbps (255 pkt)	ANT1	0	2 402	5.670	3.690
		19	2 440	6.457	4.423
		39	2 480	5.627	3.653

9.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

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.

TEST PROCEDURE

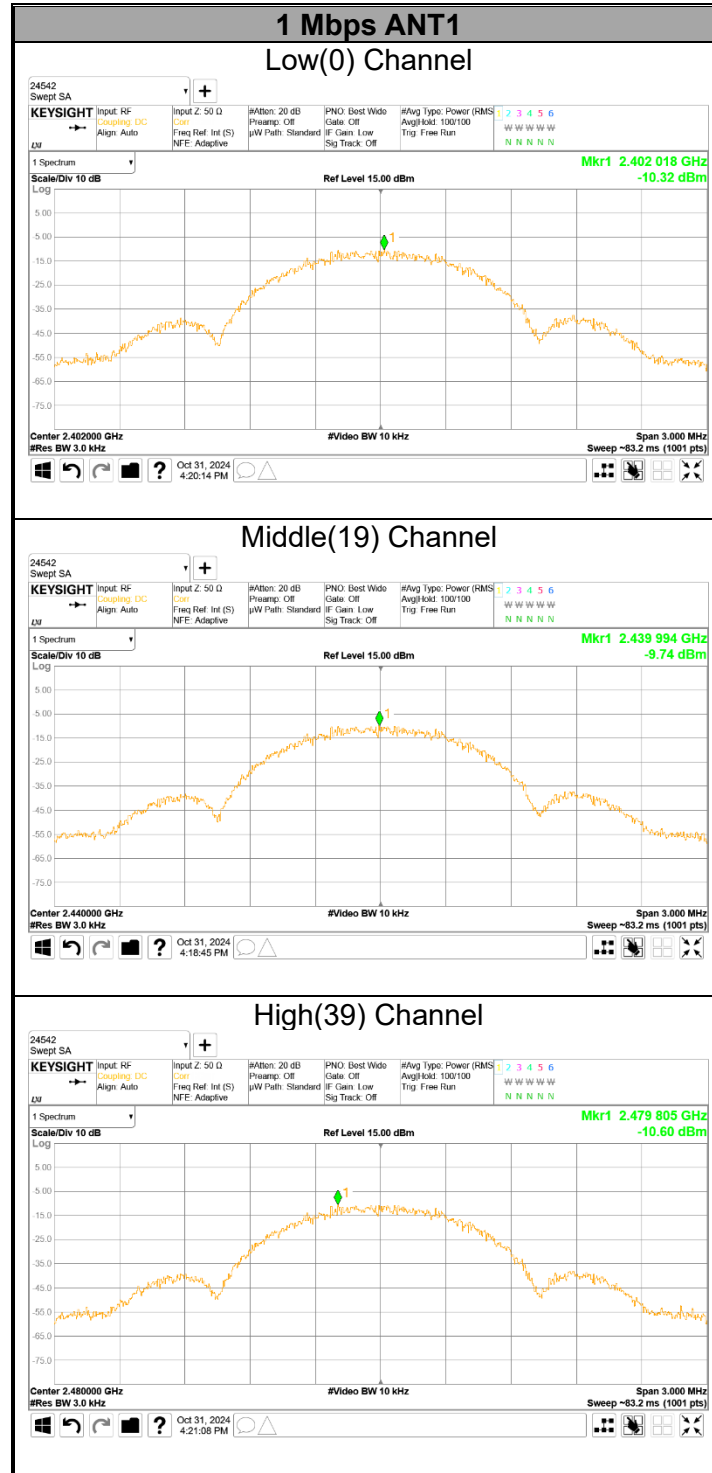
ANSI C63.10-2020, Section 11.10.2 Method PKPSD (peak PSD)

RESULTS

9.5.1. TEST DATA

Mode	Antenna	Channel	Frequency [MHz]	PSD [dBm/3kHz]	Limit [dBm/3kHz]	Margin [dB]
1 Mbps (255 pkt)	ANT1	0	2 402	-10.32	8.00	-18.32
		19	2 440	-9.74		-17.74
		39	2 480	-10.60		-18.60
		Worst		-9.74		-18.60

9.5.2. PSD TEST PLOTS



9.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

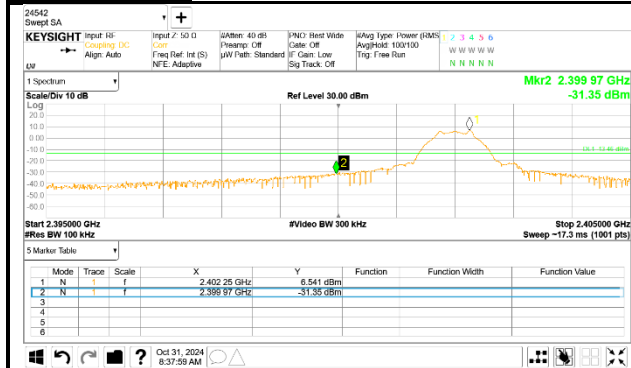
FCC §15.247 (d)

Output power was measured based on the use of a peak measurement.
Therefore, spurious emissions are required to be 20 dBc.

RESULTS

9.6.1. TEST PLOTS

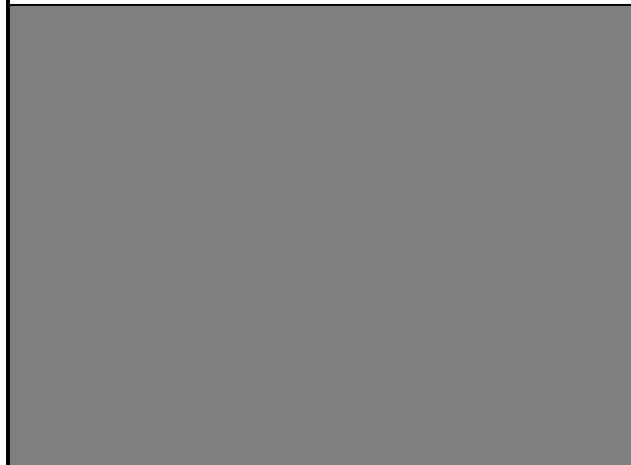
1 Mbps ANT1



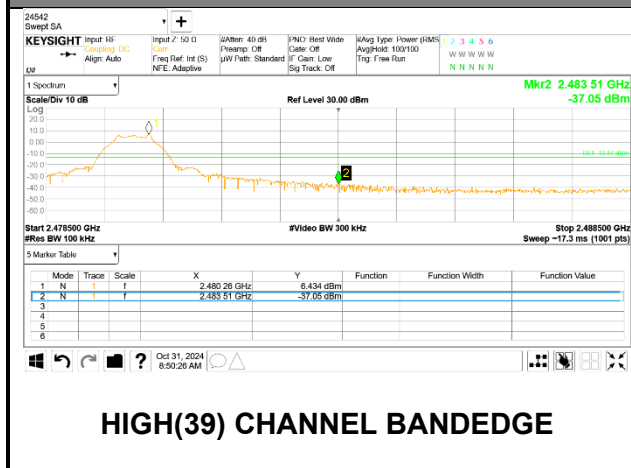
LOW(0) CHANNEL BANDEDGE



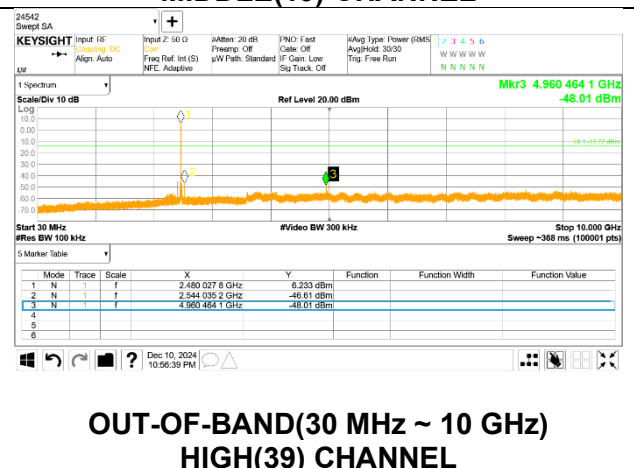
OUT-OF-BAND(30 MHz ~ 10 GHz)
LOW(0) CHANNEL



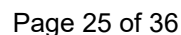
OUT-OF-BAND(30 MHz ~ 10 GHz)
MIDDLE(19) CHANNEL



HIGH(39) CHANNEL BANDEDGE



OUT-OF-BAND(30 MHz ~ 10 GHz)
HIGH(39) CHANNEL



10. RADIATED TEST RESULTS

10.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Limits for radiated disturbance of an intentional radiator		
Frequency range (MHz)	Limits (μV/m)	Measurement Distance (m)
0.009 – 0.490	2400 / F (kHz)	300
0.490 – 1.705	24000 / F (kHz)	30
1.705 – 30.0	30	30
30 – 88	100**	3
88 - 216	150**	3
216 – 960	200**	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g. §§ 15.231 and 15.241.

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane for below 1GHz and 150 cm for 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. Peak detection is used unless otherwise noted as quasi-peak.

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 add duty cycle reduction factor for average calculation. (Final detection of spurious harmonic emissions)

Duty cycle reduction factor = $20 \log(1/x)$.

The duty cycle for the restricted band-edge test was derived from section 9.1. Harmonics and spurious emissions detection utilized the BLE RF Tx Duty Cycle Calculation formula.

Duty cycle reduction factor = $20 \log(0.0968) = -20.28 \text{ dB}$
(Please refer to the BLE Operational description for timing details)

Pre-scans to detect harmonic and spurious emissions, the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 30 kHz for peak measurements.

The spectrum from 1 GHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

(From 30MHz to 1GHz, test was performed with the EUT set to transmit at the channel with highest output power)

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.

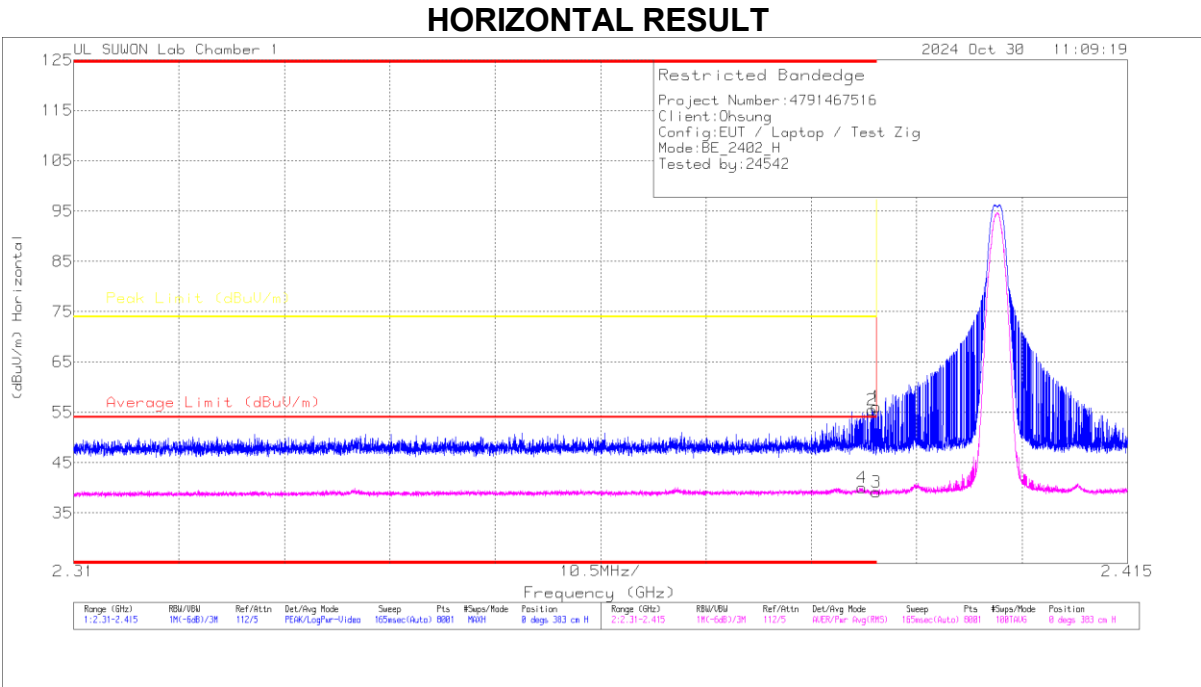
Note: Emission was pre-scanned from 9kHz to 30MHz; No emissions were detected which was at least 20dB below the specification limit (consider distance correction factor).
Per FCC part 15.31(o), test results were not reported.

Although these tests were performed other than open field test site, adequate comparison measurements were confirmed against 30 m open area test site.
Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the one of tests made in an open field based on KDB 414788.

10.2. TRANSMITTER ABOVE 1 GHz

10.2.1. 1 Mbps ANT1

BANDEDGE (0 CHANNEL)

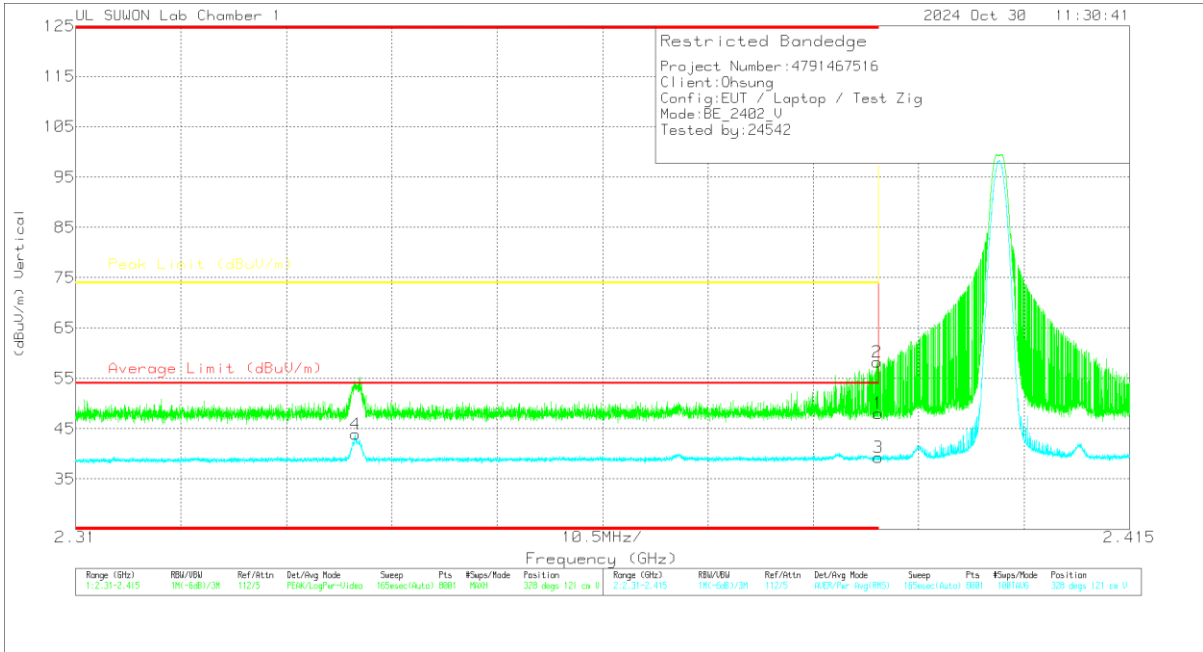


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB)	10dB_Path 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 (m)	Polarity
1	* 2.39	50.45	PK	31.7	-26	0	56.15	-	-	74	-17.85	0	383	H
2	* 2.3855	49.76	PK	31.7	-26	0	55.46	-	-	74	-18.54	0	383	H
3	* 2.39	32.77	RMS	31.7	-26	7	39.17	54	-14.83	-	-	0	383	H
4	* 2.3855	33.56	RMS	31.7	-25.9	7	40.06	54	-13.94	-	-	0	383	H

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

VERTICAL RESULT

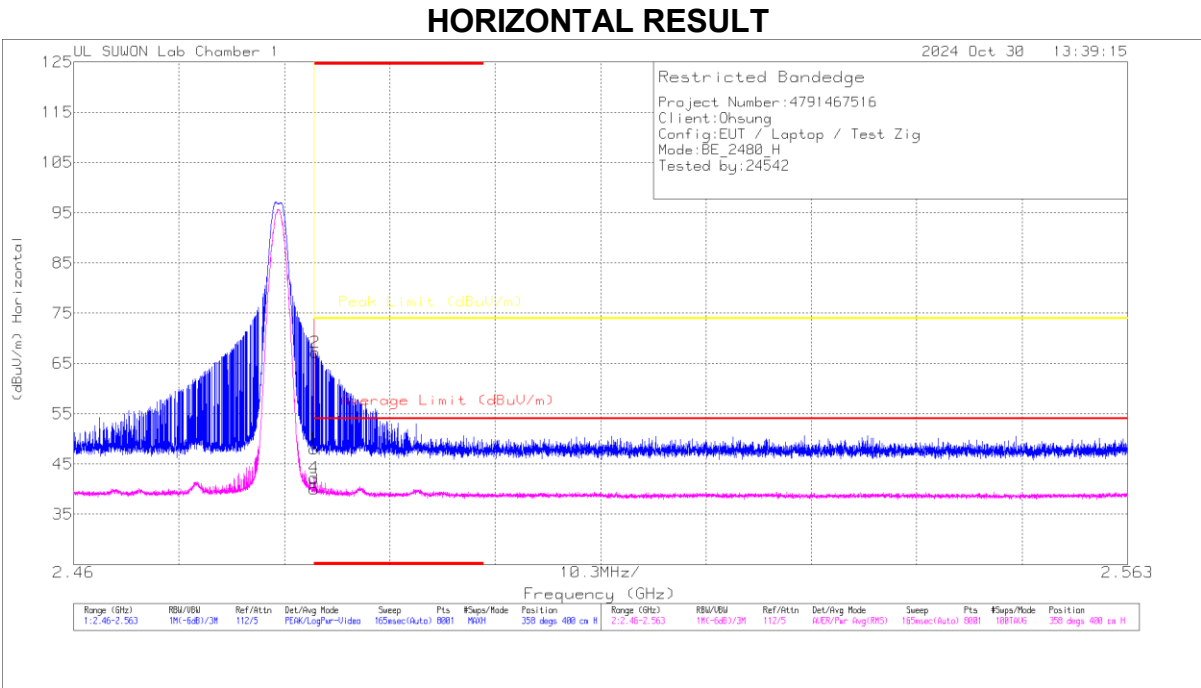


Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB)	10dB_Path 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	* 2.39	42.37	Pk	31.7	-26	0	48.07	-	-	74	-25.93	328	121	V
2	* 2.38983	52.48	Pk	31.7	-26	0	58.18	-	-	74	-15.82	328	121	V
3	* 2.39	32.84	RMS	31.7	-26	7	39.24	54	-14.76	-	-	328	121	V
4	* 2.33786	37.55	RMS	31.6	-26	7	43.85	54	-10.15	-	-	328	121	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

BANDEDGE (39 CHANNEL)

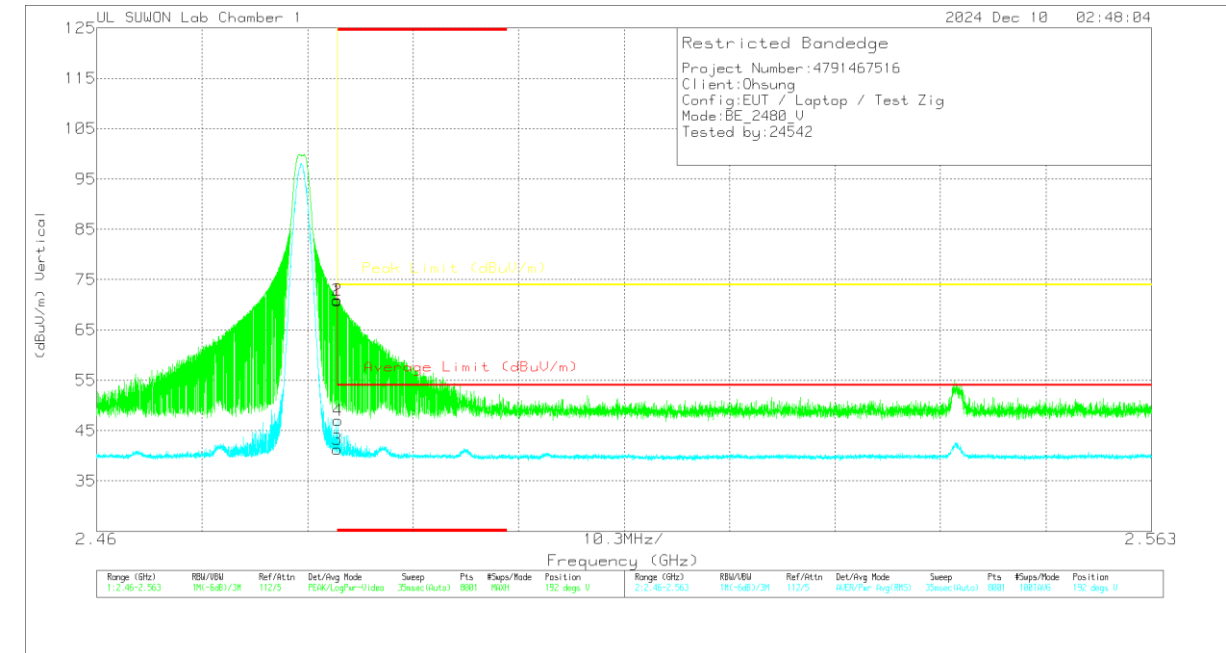


Trace Markers

V	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB)	10dB_Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Average Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	PK Margin (dB)	Asimuth (Degs)	Height (cm)	Polarity
1	* 2.48351	41.79	Pk	32	-25.8	0	47.99	-	-	74	-26.01	358	400	H
2	* 2.48364	60.99	Pk	32	-25.8	0	67.19	-	-	74	-6.81	358	400	H
3	* 2.48351	33.16	RMS	32	-25.8	-7	40.06	54	-13.94	-	-	358	400	H
4	* 2.48352	35.42	RMS	32	-25.8	-7	42.32	54	-11.68	-	-	358	400	H

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

VERTICAL RESULT



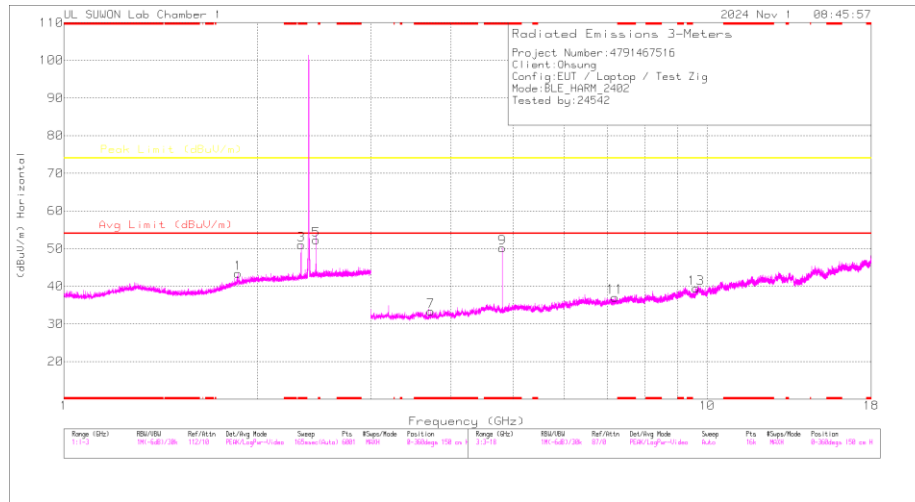
Trace Markers

Marker	Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB)	10dB_Path 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	* 2.48351	64.63	PK	32	-25.8	0	70.83	-	-	74	-3.17	192	102	V
2	* 2.48352	64.69	PK	32	-25.8	0	70.89	-	-	74	-3.11	192	102	V
3	* 2.48351	34.39	RMS	32	-25.8	-7	41.29	54	-12.71	-	-	192	102	V
4	* 2.48357	40.09	RMS	32	-25.8	-7	46.99	54	-7.01	-	-	192	102	V

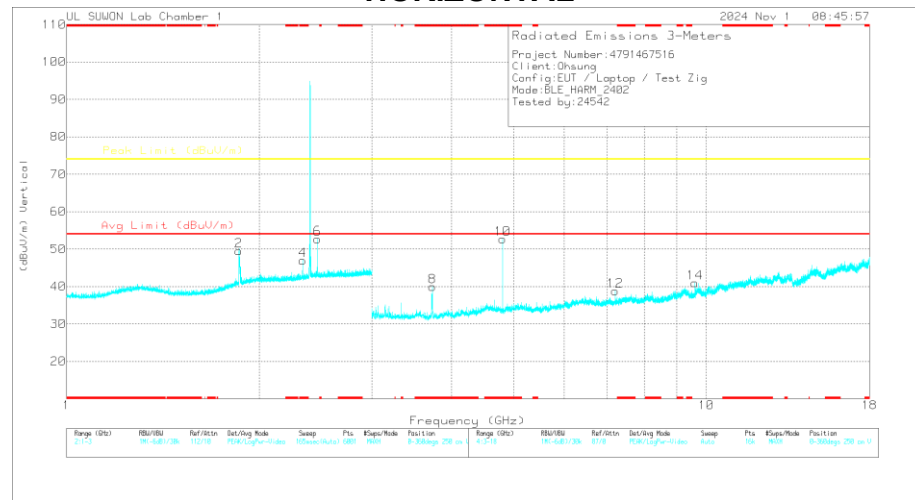
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK - Peak detector
RMS - RMS detection

HARMONICS AND SPURIOUS EMISSIONS

0 CHANNEL RESULTS



HORIZONTAL



VERTICAL

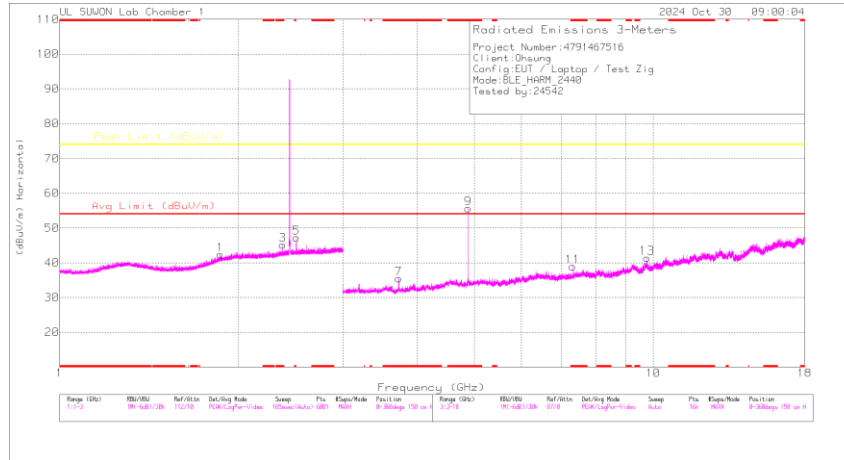
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Radiated Emissions

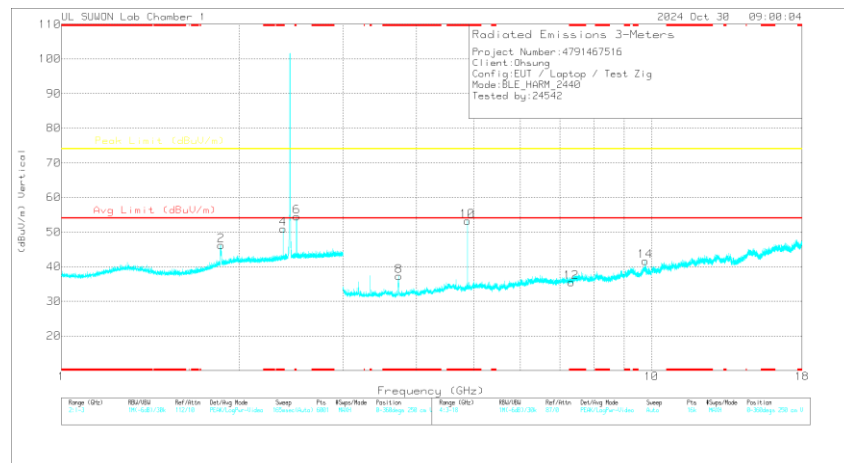
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB/m)	10dB_Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.86514	49.34	PK2	30.6	-26.7	0	53.24	-	-	74	-20.76	274	266	H
1.8612	53.13	PK2	30.5	-26.7	0	56.93	-	-	74	-17.07	342	145	V
* 2.33831	51.09	PK2	31.6	-26	0	56.69	-	-	74	-17.31	294	224	H
* 2.33831	51.09	PK2	31.6	-26	-20.28	36.41	54	-17.59	-	-	294	224	H
* 2.33773	48.87	PK2	31.6	-26	0	54.47	-	-	74	-19.53	144	100	V
* 2.33773	48.87	PK2	31.6	-26	-20.28	34.19	54	-19.81	-	-	144	100	V
* 3.73103	45.49	PK2	33	-33.4	0	45.09	-	-	74	-28.91	98	136	H
* 3.73103	45.49	PK2	33	-33.4	-20.28	24.81	54	-29.19	-	-	98	136	H
* 3.72296	50.68	PK2	33	-33.5	0	50.18	-	-	74	-23.82	360	154	V
* 3.72296	50.68	PK2	33	-33.5	-20.28	29.90	54	-24.10	-	-	360	154	V
* 4.80356	55.1	PK2	34.2	-32.9	0	56.4	-	-	74	-17.6	171	100	H
* 4.80356	55.1	PK2	34.2	-32.9	-20.28	36.12	54	-17.88	-	-	171	100	H
* 4.80348	55.9	PK2	34.2	-32.9	0	57.2	-	-	74	-16.8	165	112	V
* 4.80348	55.9	PK2	34.2	-32.9	-20.28	36.92	54	-17.08	-	-	165	112	V
7.19912	40.18	PK2	35.5	-30.9	0	44.78	-	-	74	-29.22	0	100	H
7.20579	42.07	PK2	35.5	-30.9	0	46.67	-	-	74	-27.33	296	112	V
9.60714	38.54	PK2	37	-26.9	0	48.64	-	-	74	-25.36	15	386	H
9.60904	39.57	PK2	37	-26.9	0	49.67	-	-	74	-24.33	316	100	V
9.60904	39.57	PK2	37	-26.9	0	49.67	-	-	74	-24.33	316	100	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak

19 CHANNEL RESULTS



HORIZONTAL



VERTICAL

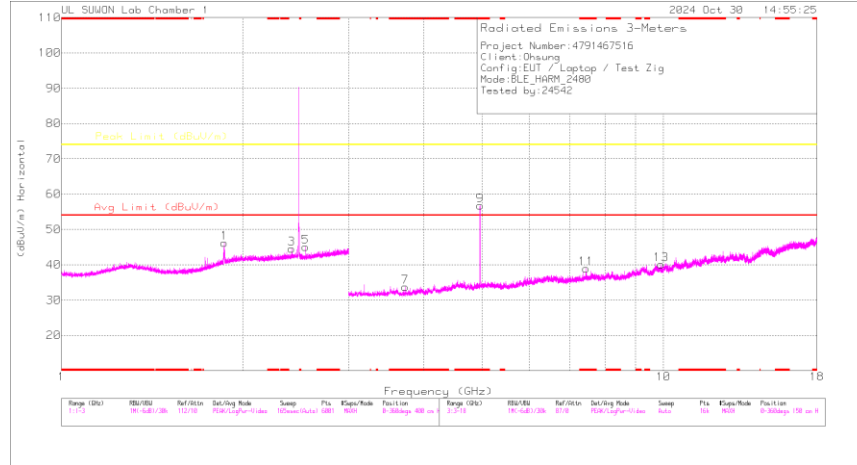
Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

Radiated Emissions

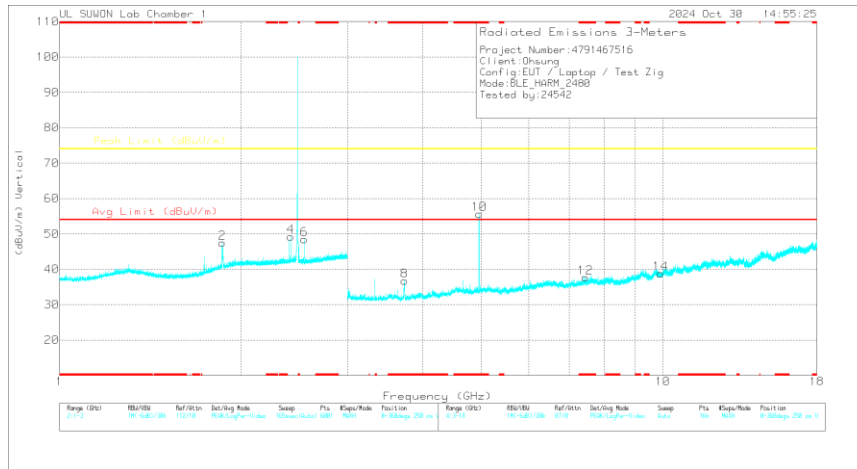
Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_Factor(dB)	10dB_Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.87067	46.23	PK2	30.6	-26.7	0	50.13	-	-	74	-23.87	0	100	H
1.86273	52.72	PK2	30.5	-26.7	0	56.52	-	-	74	-17.48	2	118	V
* 2.37607	49.26	PK2	31.7	-25.9	0	55.06	-	-	74	-18.94	360	391	H
* 2.37607	49.26	PK2	31.7	-25.9	-20.28	34.78	54	-19.22	-	-	360	391	H
* 2.37601	50.21	PK2	31.7	-25.9	0	56.01	-	-	74	-17.99	323	107	V
* 2.37601	50.21	PK2	31.7	-25.9	-20.28	35.73	54	-18.27	-	-	323	107	V
2.5041	50.43	PK2	32	-25.9	0	56.53	-	-	74	-17.47	351	390	H
2.50377	53.45	PK2	32	-25.9	0	59.55	-	-	74	-14.45	328	123	V
* 3.72028	46.14	PK2	33	-33.5	0	45.64	-	-	74	-28.36	359	111	H
* 3.72028	46.14	PK2	33	-33.5	-20.28	25.36	54	-28.64	-	-	359	111	H
* 3.72182	50.7	PK2	33	-33.4	0	50.3	-	-	74	-23.7	0	101	V
* 3.72182	50.7	PK2	33	-33.4	-20.28	30.02	54	-23.98	-	-	0	101	V
* 4.87945	56.57	PK2	34.2	-33	0	57.77	-	-	74	-16.23	188	100	H
* 4.87945	56.57	PK2	34.2	-33	-20.28	37.49	54	-16.51	-	-	188	100	H
* 4.87944	56.96	PK2	34.2	-33	0	58.16	-	-	74	-15.84	176	109	V
* 4.87944	56.96	PK2	34.2	-33	-20.28	37.88	54	-16.12	-	-	176	109	V
* 7.32059	43.33	PK2	35.5	-30.8	0	48.03	-	-	74	-25.97	326	102	H
* 7.32059	43.33	PK2	35.5	-30.8	-20.28	27.75	54	-26.25	-	-	326	102	H
* 7.32084	41.36	PK2	35.5	-30.8	0	46.06	-	-	74	-27.94	275	268	V
* 7.32084	41.36	PK2	35.5	-30.8	-20.28	25.78	54	-28.22	-	-	275	268	V
9.76086	39.94	PK2	37.2	-26.2	0	50.94	-	-	74	-23.06	136	100	H
9.7591	38.33	PK2	37.2	-26.3	0	49.23	-	-	74	-24.77	309	118	V

* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak

39 CHANNEL RESULTS



HORIZONTAL



VERTICAL

Note: Emission was scanned up to 26GHz; No emissions were detected above the noise floor which was at least 20dB below the specification limit.

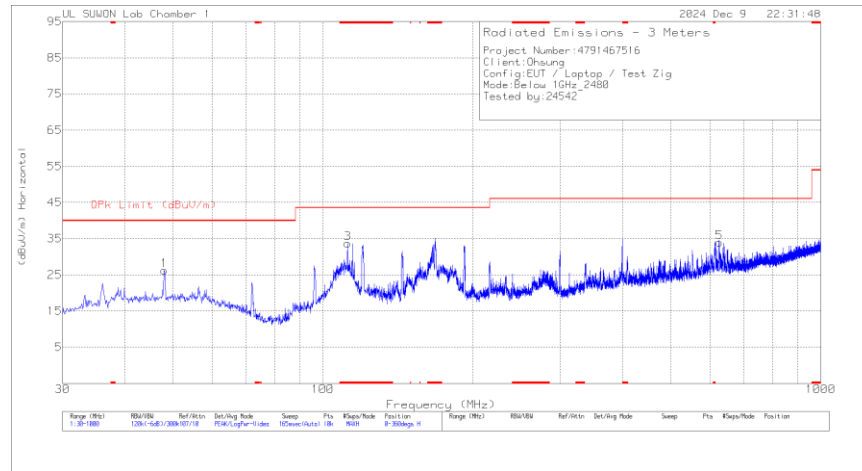
Radiated Emissions

Frequency (GHz)	Meter Reading (dBuV)	Det	Antenna_717_F actor(dB)	10dB_Path Loss(dB)	DC Corr (dB)	Corrected Reading (dBuV/m)	Avg Limit (dBuV/m)	Margin (dB)	Peak Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1.86403	46.8	PK2	30.5	-26.7	0	50.6	-	-	74	-23.4	0	100	H
1.86573	52.75	PK2	30.6	-26.7	0	56.65	-	-	74	-17.35	357	123	V
2.41586	48.05	PK2	31.8	-25.8	0	54.05	-	-	74	-19.95	358	372	H
2.41628	49.2	PK2	31.8	-25.8	0	55.2	-	-	74	-18.8	330	116	V
2.54377	46.88	PK2	32.1	-25.8	0	53.18	-	-	74	-20.82	169	376	H
2.54373	49.63	PK2	32.1	-25.8	0	55.93	-	-	74	-18.07	324	106	V
* 3.72628	46.16	PK2	33	-33.4	0	45.76	-	-	74	-28.24	354	116	H
* 3.72628	46.16	PK2	33	-33.4	-20.28	25.48	54	-28.52	-	-	354	116	H
* 3.72715	47.4	PK2	33	-33.4	0	47	-	-	74	-27	140	166	V
* 3.72715	47.4	PK2	33	-33.4	-20.28	26.72	54	-27.28	-	-	140	166	V
* 4.96051	59.32	PK2	34.2	-33	0	60.52	-	-	74	-13.48	176	265	H
* 4.96051	59.32	PK2	34.2	-33	-20.28	40.24	54	-13.76	-	-	176	265	H
* 4.95947	58.01	PK2	34.2	-33	0	59.21	-	-	74	-14.79	187	100	V
* 4.95947	58.01	PK2	34.2	-33	-20.28	38.93	54	-15.07	-	-	187	100	V
* 7.44077	43.35	PK2	35.6	-30.3	0	48.65	-	-	74	-25.35	326	114	H
* 7.44077	43.35	PK2	35.6	-30.3	-20.28	28.37	54	-25.63	-	-	326	114	H
* 7.44065	41.36	PK2	35.6	-30.3	0	46.66	-	-	74	-27.34	152	106	V
* 7.44065	41.36	PK2	35.6	-30.3	-20.28	26.38	54	-27.62	-	-	152	106	V
9.9188	39.47	PK2	37.4	-27	0	49.87	-	-	74	-24.13	210	101	H
9.91933	38.05	PK2	37.4	-27.1	0	48.35	-	-	74	-25.65	317	110	V

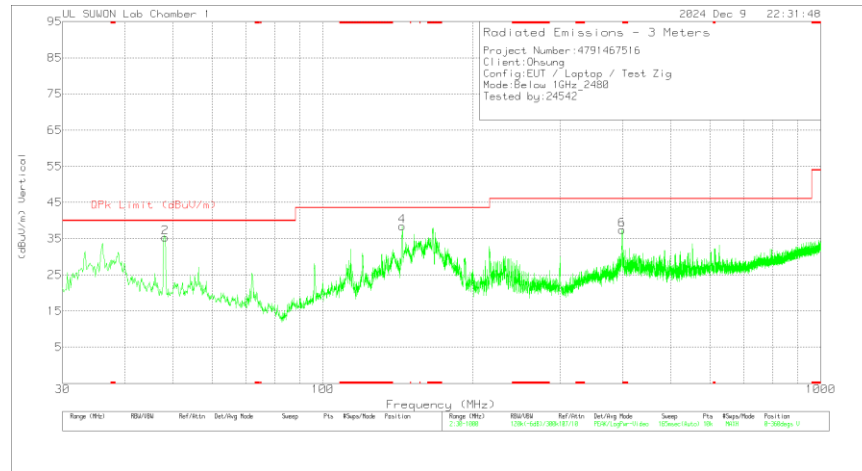
* - indicates frequency in CFR47 Pt 15 / IC RSS-Restricted Band
PK2 - KDB558074 Method: Maximum Peak

10.3. WORST CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION)



HORIZONTAL



VERTICAL

Trace Markers

Marker	Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna_749_Factor(dB/m)	Below_1G_Path Loss(dB)	Corrected Reading (dBuV/m)	QPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
1	48.042	37.35	Pk	19.8	-30.9	26.25	40	-13.75	0-360	200	H
3	* 112.062	47.26	Pk	16.4	-30	33.66	43.52	-9.86	0-360	200	H
5	625.968	36.12	Pk	25	-27.2	33.92	46.02	-12.1	0-360	100	H
2	48.236	46.46	Pk	19.8	-30.9	35.36	40	-4.64	0-360	200	V
4	144.266	54.44	Pk	13.7	-29.7	38.44	43.52	-5.08	0-360	200	V
6	398.697	44.11	Pk	21.3	-28	37.41	46.02	-8.61	0-360	200	V

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

Pk - Peak detector

Radiated Emissions

Frequency (MHz)	Meter Reading (dBuV)	Det	Antenna_749_Factor(dB/m)	Below_1G_Path Loss(dB)	Corrected Reading (dBuV/m)	QPK Limit (dBuV/m)	Margin (dB)	Azimuth (Degs)	Height (cm)	Polarity
144.266	50.91	Qp	13.7	-29.7	35.61	43.52	-7.91	288	108	V
48.1253	46.36	Qp	19.8	-30.9	35.96	40	-4.04	130	100	V

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

Qp - Quasi-Peak detector

END OF TEST REPORT