TEST REPORT

Report Number: 106347575MPK-020
Project Numbers: G106347575
Report Issue Date: March 09, 2026
Report Revised Date: March 25, 2026

Testing performed on
Surface Door-Window Sensor
Model Number: SPVXIXS

FCC ID: 2ASEQSPVXIXS
IC: 24733-SPVXIXS

to

FCC Part 15 Subpart C (15.247)
ISED RSS-247 Issue 4

For

Enkoa System, SL

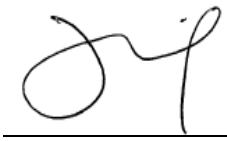
Test Performed by:	**Test Authorized by:**
Intertek	Enkoa System, SL
1365 Adams Court	Polígono Erramone 45
Menlo Park, CA 94025	20850 Mendaro
USA	Guipúzcoa
	Spain

Prepared by: _____ **Date:** March 09, 2026
Gabriel Carreon

Reviewed by: _____ **Date:** March 09, 2026
Minh Ly

Report No. 106347575MPK-020	
Equipment Under Test:	Surface Door-Window Sensor
Model Number:	SPVXIXS
Applicant:	Enkoa System, SL
Contact:	Antonio Cid
Address:	Polígono Erramone 45 20850 Mendaro Guipúzcoa
Country:	Spain
Tel. Number:	943757030
Email:	a.cid@enkoa.com
Applicable Regulation:	FCC Part 15 Subpart C (15.247) ISED RSS-247 Issue 4
Date of Test:	February 24, 2026 to February 26, 2026

We attest to the accuracy of this report:



Gabriel Carreon
Project Engineer

Minh Ly
EMC Team Lead

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1.0 Summary of Tests

Test	Reference FCC	Reference Industry Canada	Result
RF Output Power	15.247(b)(3)	RSS-247, 5.4.d)	Complies
6 dB Bandwidth	15.247(a)(2)	RSS-247, 5.2.a)	Complies
Power Density	15.247(e)	RSS-247, 5.2.b)	Complies
Out of Band Antenna Conducted Emission	15.247(d)	RSS-247, 5.5	Complies
Transmitter Radiated Emissions	15.247(d), 15.209, 15.205	RSS-247, 5.5	Complies
AC Line Conducted Emission	15.207	RSS-GEN	Not Applicable – Battery Powered
Antenna Requirement	15.203	RSS-GEN	Complies (Internal Antenna)

EUT receive date: February 24, 2026

EUT receive condition: The pre-production version of the EUT was received in good condition with no apparent damage. As declared by the Applicant, it is identical to the production units.

Test start date: February 24, 2026

Test completion date: February 26, 2026

The test results in this report pertain only to the item tested.

2.0 General Information

2.1 Product Description

Enkoa System, SL supplied the following description of the EUT:

The product is designed to be installed on doors or windows, with the detector mounted on the door frame and the magnet on the door or window. The detector uses a magnetoresistive sensor to detect the magnet. When the door or window is opened, the magnet separates from the detector, triggering it to send a signal to our energy saver.

It features wireless communication (2.4 GHz, IEEE 802.15.4) and transmits the door or window status to another device (energy saver).

For more information, refer to the following product specification, declared by the manufacturer.

Information about the 2.4 GHz radio is presented below:

Applicant	Enkoa System, SL
Model No.	SPVXIXS
FCC Identifier	2ASEQSPVXIXS
IC Identifier	24733-SPVXIXS
Type of transmission	Zigbee
Rated RF Output	-4.46 dBm
Antenna(s) & Gain	Chip type, +2.8 dBi
Frequency Range	2405 MHz
Type of modulation/data rate	GFSK / 1Mbit/s
Number of Channel(s)	1 (Channel 11)[1]
Applicant Name & Address	Enkoa System, SL Polígono Erramone 45 20850 Mendaro Guipúzcoa Spain

[1] Per manufacturer: the EUT operates exclusively on IEEE 802.15.4 channel 11 (2405 MHz). No other channels are accessible to the end user or field firmware.

2.2 Related Submittal(s) Grants

None.

2.3 Test Facility

The test sites used to collect the radiated data are 10-m and 3-m semi-anechoic chamber. This test facility and site measurement data have been fully placed on file with the FCC, IC and A2LA accredited.

2.4 Test Methodology

Antenna conducted measurements were performed according to the FCC documents "Guidance for Performing Compliance Measurement on Digital Transmission Systems (DTS) Operating under §15.247" (KDB 558074 D01 DTS Meas Guidance v05r02), and RSS-247 Issue 4, RSS-GEN Issue 5.

Radiated emissions and AC mains conducted emissions measurements were performed according to the procedures in ANSI C63.10-2020+Cor. 1-2023+C63.10a-2024+ Errata to C63.10a-2024. Radiated tests were performed at an antenna to EUT distance of 10 meters for frequency 9kHz - 30 MHz and 3 meters for frequency 30 MHz – 26GHz.

2.5 Measurement Uncertainty

Compliance with the limits was based on the results of the measurements and doesn't take into account the measurement uncertainty.

Estimated Measurement Uncertainty

Measurement	Expanded Uncertainty (k=2)		
	0.15 MHz – 1 GHz	1 GHz – 2.5 GHz	> 2.5 GHz
RF Power and Power Density – antenna conducted	-	0.7 dB	-
Unwanted emissions – antenna conducted	1.1 dB	1.3 dB	1.9 dB
Bandwidth – antenna conducted	-	30 Hz	-

Measurement	Expanded Uncertainty (k=2)			
	0.15 MHz – 30MHz	30 – 200 MHz	200 MHz – 1 GHz	1 GHz – 18 GHz
Radiated emissions	-	4.7	4.6	5.1 dB
AC mains conducted emissions	2.1 dB	-	-	-

3.0 System Test Configuration

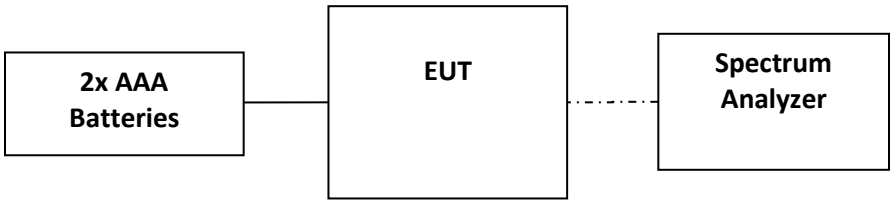
3.1 Support Equipment

Support Equipment		
Description	**Manufacturer**	**Model**
AAA Batteries	Duracell	MN2400

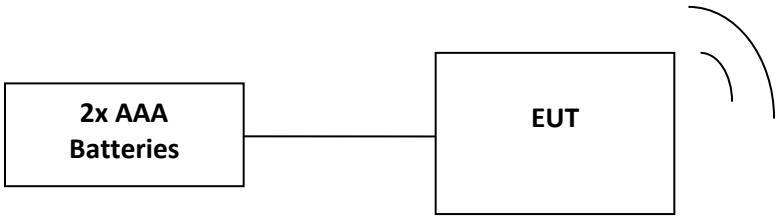
3.2 Block Diagram of Test Setup

Equipment Under Test			
Description	**Manufacturer**	**Model**	**Serial Number**
Radiated Sample	Enkoa System, SL	SPVXIXS	MPK2602261218-001
Conducted Sample	Enkoa System, SL	SPVXIXS	MPK2602261218-002

Antenna was removed and co-axial connector with a cable was installed for Conducted Measurements.



Radiated Measurements SETUP



S = Shielded **U** = Unshielded	**F** = With Ferrite **m** = Length in Meters

EUT Photo

3.3 Justification

For radiated emission measurements the EUT is placed on a non-conductive table. The EUT was configured to continuously transmit. The highest clock frequency used in the EUT is 2.405 GHz.

As per the manufacturer:

"*This device operates exclusively on IEEE 802.15.4 channel 11 (2405 MHz). No other channels are accessible to the end user or field firmware.*"

3.4 Software Exercise Program

The EUT exercise program used during radiated and conducted testing was provided by Enkoa System, SL.

3.5 Mode of Operation during Test

Mode of operation during the tests was setup using a button inside the deivce which allows controlling the radio by test software. During the transmitter tests, the transmitter was setup to transmit maximum communication and RF power levels.

EUT was placed into transmit mode at Channel 11 (2405 MHz).

3.6 Modifications Required for Compliance

No modifications were made by the manufacturer or Intertek to the EUT in order to bring the EUT into compliance.

3.7 Additions, Deviations and Exclusions from Standards

No additions, deviations or exclusions from the standard were made.

4.0 Measurement Results

4.1 6-dB Bandwidth and 99% Occupied Bandwidth
FCC Rule: 15.247(a)(2); RSS-247, 5.2.a) and RSS-GEN;

4.1.1 Requirement

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

4.1.2 Procedure

A spectrum analyzer was connected to the antenna port of the transmitter.

For FCC 6dB Channel Bandwidth the Procedure described in the FCC Publication KDB 558074 D01 Meas Guidance v05r02 was used to determine the DTS occupied bandwidth. Section 11.8.1 Option 1 of ANSI 63.10 was used.

1. Set RBW = 100 kHz.
2. Set the video bandwidth (VBW) ≥ 3 x RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

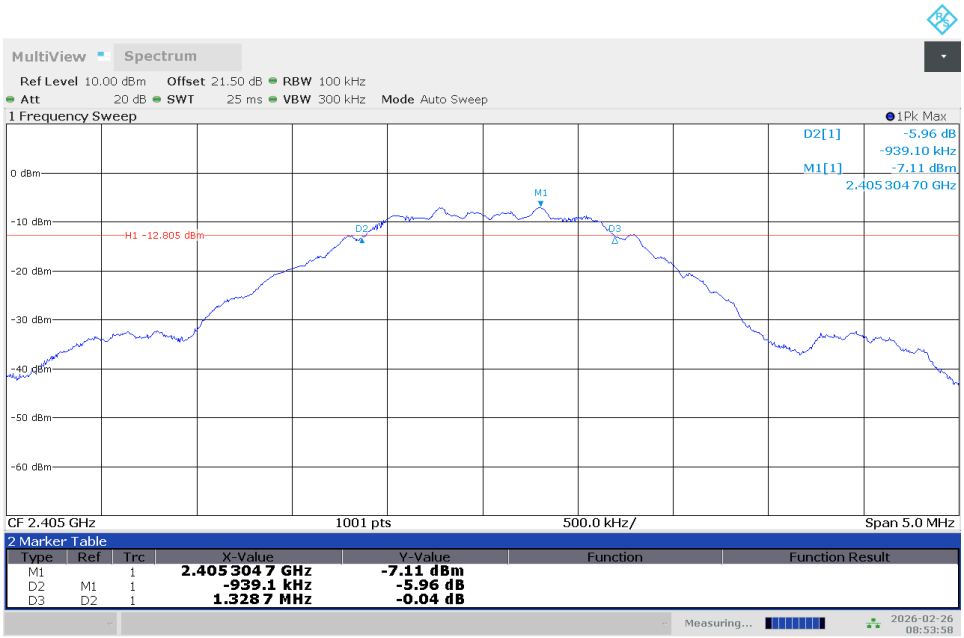
For 99% power bandwidth measurement, the bandwidth was determined by using the built-in 99% occupied bandwidth function of the spectrum analyzer. The resolution bandwidth is set to 1% of the selected span as is without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth.

4.1.3 Test Result

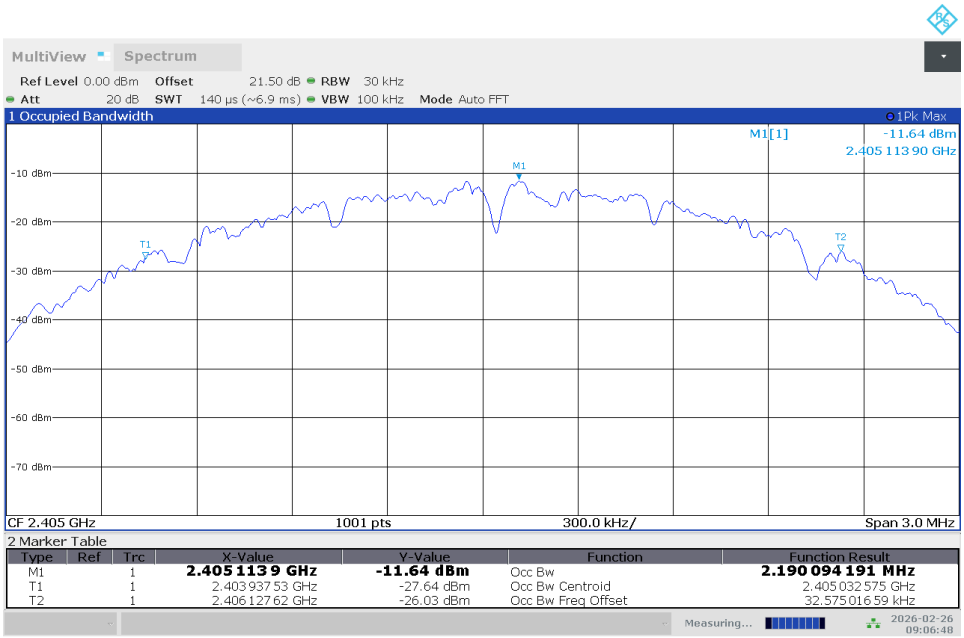
Frequency (MHz)	6-dB bandwidth FCC 15.247 & RSS-GEN, MHz	Occupied bandwidth, RSS-GEN, MHz	Plot
2405	1.329	--	1.1
	--	2.190	1.2

Tested By	Test Date	Results
Gabriel Carreon	February 26, 2026	Complies

Plot 1. 1


MultiView
Spectrum
Ref Level 10.00 dBm Offset 21.50 dB RBW 100 kHz
Att 20 dB SWT 25 ms VBW 300 kHz Mode Auto Sweep
1 Frequency Sweep
1Pk Max
D2[1] -5.96 dB
-939.10 kHz
M1[1] -7.11 dBm
2.405 304 70 GHz
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
H1 -12.805 dBm
M1
D2
D3
CF 2.405 GHz
1001 pts
500.0 kHz/
Span 5.0 MHz
2 Marker Table
Type Ref Trc X-Value Y-Value Function Function Result
M1 1 2.405 304 7 GHz -7.11 dBm
D2 M1 1 -939.1 kHz -5.96 dB
D3 D2 1 1.328 7 MHz -0.04 dB
Measuring...
2026-02-26
08:53:58

Plot 1. 2



Results	Complies

4.2 Maximum Peak Conducted Output Power at Antenna Terminals
FCC Rule: 15.247(b)(3); RSS-247, 5.4.d);

4.2.1 Requirement

For antennas with gains of 6 dBi or less, maximum allowed transmitter output is 1 watt or 30 dBm.
For antennas with gains greater than 6 dBi, transmitter output level must be decreased appropriately, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.2.2 Procedure

The procedure described in FCC Publication KDB 558074 D01 Meas Guidance v05r02 was used. Specifically, section 11.9.1.1 RBW ≥ DTS bandwidth in ANSI 63.10.

1. Set the RBW ≥ DTS Bandwidth
2. Set the VBW ≥ 3 x RBW
3. Set the span ≥ 3 x RBW
4. Detector = Peak
5. Sweep time = Auto couple
6. Trace mode = Max Hold
7. Allow trace to fully stabilize
8. Use peak marker function to determine the peak amplitude level.

A spectrum analyzer was connected to the antenna port of the transmitter.

4.2.3 Test Result

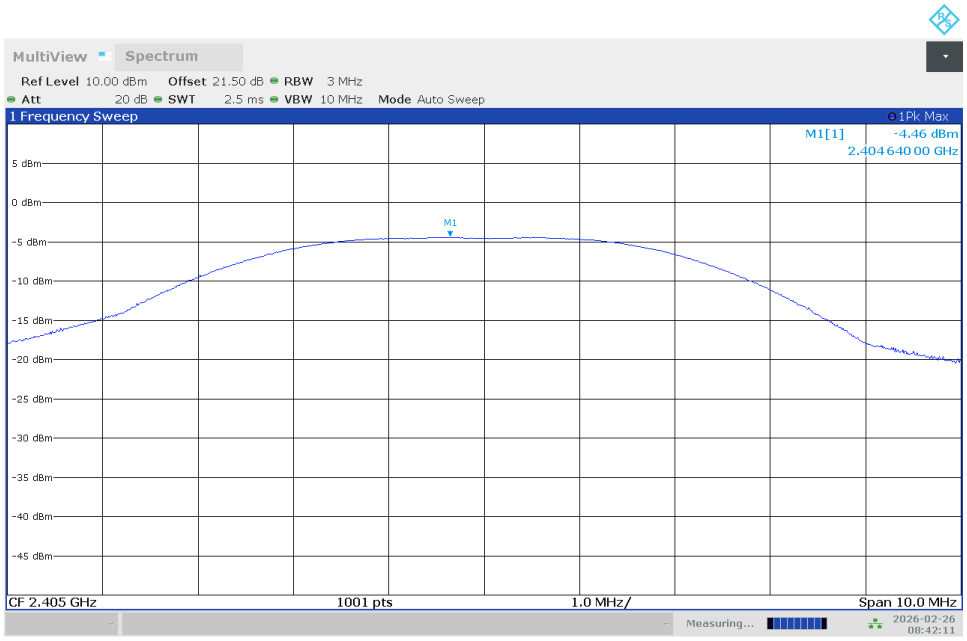
Refer to the following plots 2.1 for the test details.

Frequency	Conducted Power (peak)		Plot
MHz	dBm	mW	
2405	-4.46	0.357	2.1

The manufacturer declares the maximum antenna gain at +2.8 dBi.
Worst case EIRP (highest level) = -4.46 + 2.8 = -1.66 dBm (0.682 mW).

Tested By	Test Date	Results
Gabriel Carreon	February 26, 2026	Complies

Plot 2. 1



Results	Complies

4.3 Maximum Power Spectral Density
FCC: 15.247 (e); RSS-247, 5.2.b);

4.3.1 Requirement

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna should not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

4.3.2 Procedure

A spectrum analyzer was connected to the antenna port of the transmitter.

The procedure described in FCC Publication KDB 558074 D01 Meas Guidance v05r02, specifically section 11.10.2 Method PKPSD (peak PSD) of ANSI 63.10.

1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the *DTS bandwidth*.
3. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.
4. Set the VBW ≥ 3 x RBW.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level within the RBW.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

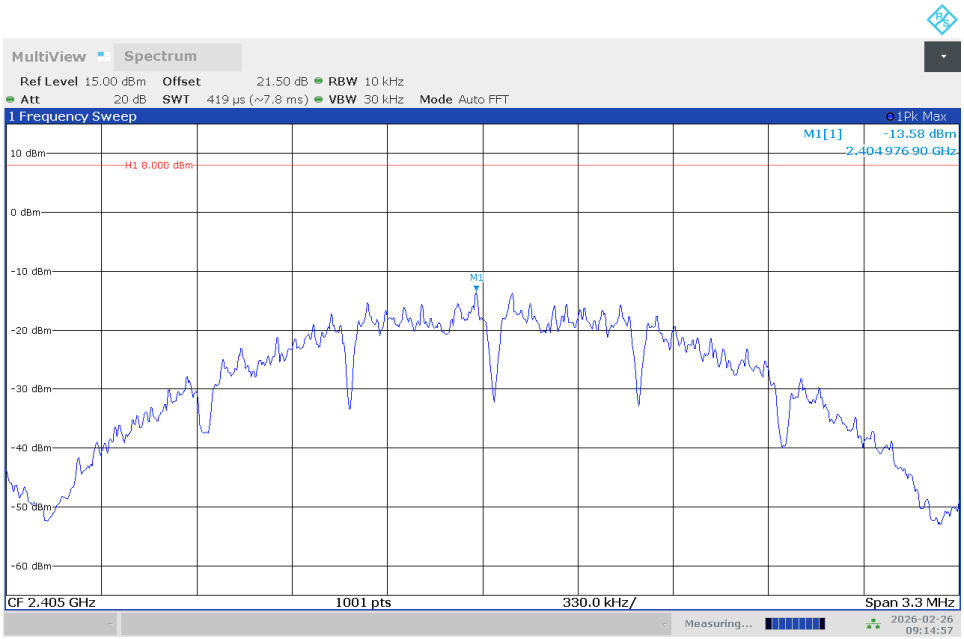
4.3.3 Test Result

Refer to the following plot for the test result

Frequency, MHz	Maximum Power Spectral Density, dBm	Maximum Power Spectral Density Limit, dBm	Margin, dB	Plot
2405	-13.58	8.0	-21.58	3.1

Tested By	Test Date	Results
Gabriel Carreon	February 26, 2026	Complies

Plot 3. 1



Results	Complies

4.4 Out of Band Antenna Conducted Emission
FCC: 15.247(d); RSS-247, 5.5;

4.4.1 Requirement

In any 100 kHz bandwidth outside the EUT pass-band, the RF power shall be below the maximum in-band 100 kHz emissions by at least 20 dB (if peak power of in-band emission is measured) or 30 dB (if average power of in-band emission is measured).

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a)

4.4.2 Procedure

The procedure described in FCC Publication KDB 558074 D01 Meas Guidance v05r02, specifically section 11.11 DTS Emissions in non-restricted frequency bands of ANSI 63.10.

A spectrum analyzer was connected to the antenna port of the transmitter.

1. Set the RBW = 100 kHz.
2. Set the VBW ≥ 3 x RBW.
3. Detector = peak.
4. Sweep time = auto couple.
5. Trace mode = max hold.
6. Allow trace to fully stabilize.
7. Use the peak marker function to determine the maximum amplitude level.

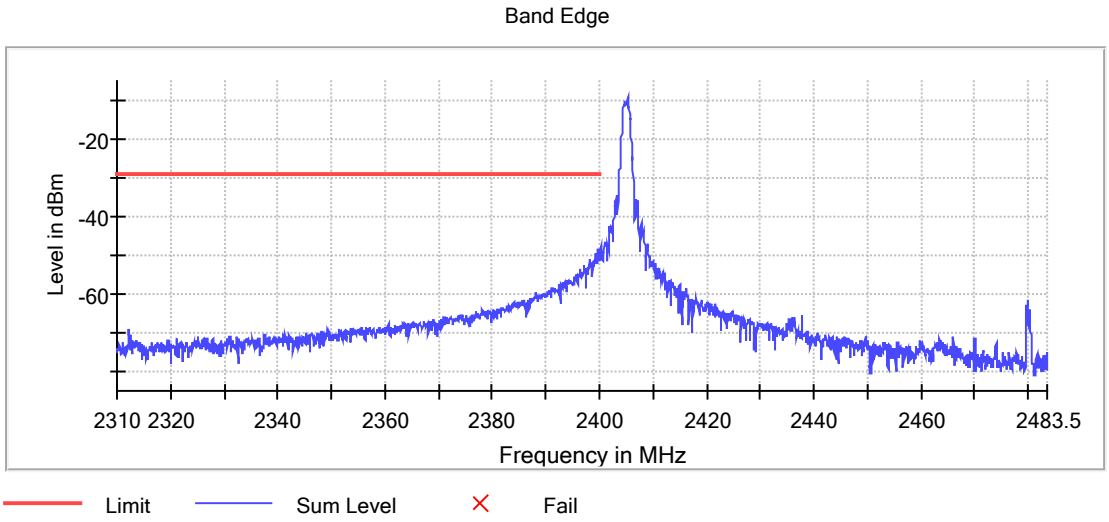
The unwanted emissions were measured from 30 MHz to 25 GHz. Plots below are corrected for cable loss and then compared to the limits.

4.4.3 Test Result

Refer to the following plots 4.1 – 4.5 for unwanted conducted emissions. The plot shows -20dB attenuation limit line.

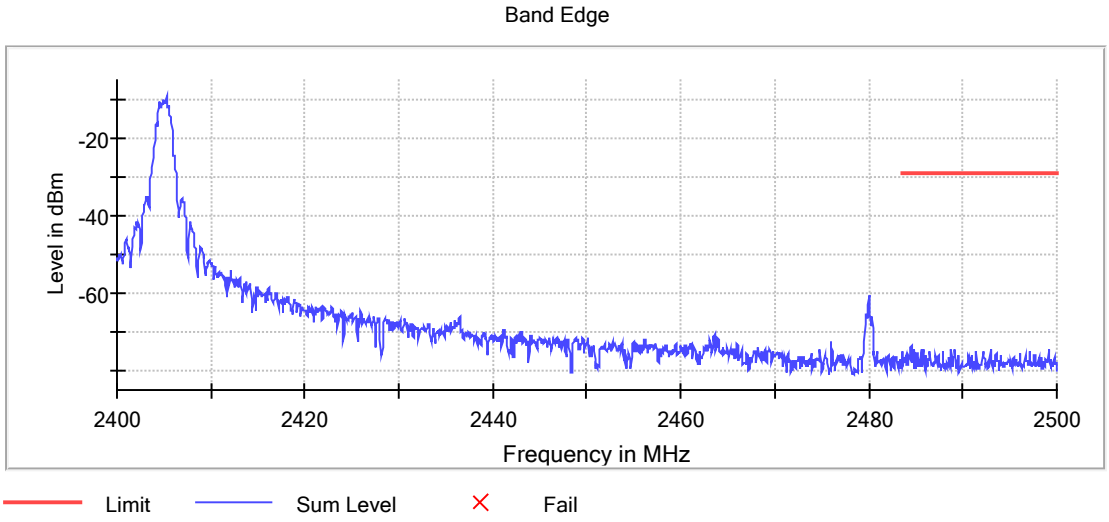
Tested By	Test Date	Results
Gabriel Carreon	February 26, 2026	Complies

Tx @ 2405 MHz, 2400 MHz Band Edge
Plot 4.1



Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2399.799889	-48.3	19.1	-29.2	PASS
2399.849917	-48.6	19.4	-29.2	PASS
2399.249583	-49.3	20.2	-29.2	PASS
2399.749861	-49.5	20.3	-29.2	PASS
2399.299611	-49.6	20.4	-29.2	PASS
2399.949972	-50.0	20.8	-29.2	PASS
2399.199555	-50.2	21.0	-29.2	PASS
2399.699833	-50.3	21.1	-29.2	PASS
2399.899944	-50.3	21.1	-29.2	PASS
2398.198999	-50.8	21.6	-29.2	PASS
2399.649805	-50.8	21.6	-29.2	PASS
2399.099500	-50.9	21.7	-29.2	PASS
2398.249027	-51.1	22.0	-29.2	PASS
2399.049472	-51.3	22.1	-29.2	PASS
2399.599778	-51.4	22.2	-29.2	PASS

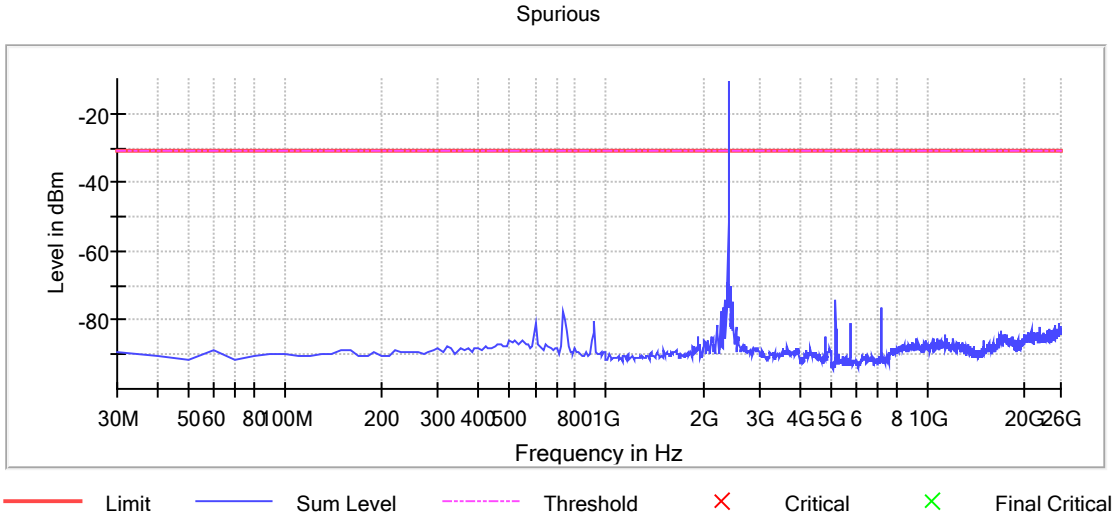
Tx @ 2405 MHz, 2483.5 MHz Band Edge
Plot 4.2



Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)	Result
2484.503040	-73.7	44.7	-29.0	PASS
2484.452888	-73.9	44.9	-29.0	PASS
2484.402736	-74.0	45.1	-29.0	PASS
2484.854103	-74.3	45.3	-29.0	PASS
2489.167173	-74.3	45.3	-29.0	PASS
2485.606383	-74.3	45.3	-29.0	PASS
2485.756839	-74.4	45.4	-29.0	PASS
2484.904255	-74.4	45.4	-29.0	PASS
2485.806991	-74.4	45.4	-29.0	PASS
2492.928571	-74.6	45.6	-29.0	PASS
2485.556231	-74.6	45.6	-29.0	PASS
2488.765957	-74.7	45.8	-29.0	PASS
2488.715805	-74.7	45.8	-29.0	PASS
2499.147416	-74.7	45.8	-29.0	PASS
2483.550152	-74.8	45.8	-29.0	PASS

Results	Complies

Tx @ 2405 MHz
9kHz -26GHz Conducted Spurious
Plot 4.3



Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
2370.000000	-69.0	38.3	-30.7
2390.000000	-70.6	39.9	-30.7
5173.099702	-74.2	43.5	-30.7
2330.000000	-74.2	43.5	-30.7
5183.098214	-74.4	43.7	-30.7
2310.000000	-76.1	45.4	-30.7
7212.796131	-76.5	45.8	-30.7
2380.000000	-76.8	46.1	-30.7
2360.000000	-76.8	46.1	-30.7
730.000000	-77.2	46.6	-30.7
2270.000000	-77.4	46.7	-30.7
5163.101190	-78.0	47.3	-30.7
740.000000	-80.0	49.3	-30.7
920.000000	-80.2	49.5	-30.7
2280.000000	-80.5	49.8	-30.7

Results	Complies

4.5 Transmitter Radiated Emissions
FCC Rules: 15.247(d), 15.209, 15.205; RSS-247, 5.5;

4.5.1 Requirement

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

For out of band radiated emissions (except for frequencies in restricted bands), in any 100 kHz bandwidths outside the EUT pass-band, the RF power shall be at least 20dB (peak) or 30 dB (average) below that of the maximum in-band 100 kHz emissions.

4.5.2 Procedure

Radiated emission measurements were performed from 9 kHz to 26.5 GHz according to the procedure described in ANSI C63.10. Spectrum Analyzer Resolution Bandwidth is 200Hz or greater for frequencies 9kHz to 30MHz, 100 kHz or greater for frequencies 30 MHz to 1000 MHz, 1 MHz for frequencies above 1000 MHz. Above 1000 MHz Peak and Average measurements were performed.

The EUT is placed on a plastic turntable that is 80 cm in height for below 1000MHz and 1.5m in height for above 1GHz. If the EUT attaches to peripherals, they are connected and operational (as typical as possible). During testing, all cables were manipulated to produce worst-case emissions. The signal is maximized through rotation. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters.

Radiated emissions are taken at 3 meters for frequencies above 1 GHz and at 10 meters for frequencies below 1 GHz.

Measurements made from 1 GHz to 18GHz had a 2.4-2.5GHz notch filter in place. A preamp was used from 9kHz to 26.5GHz.

All measurements were made with a Peak Detector and compared to QP limits for 30MHz – 1GHz and Average limits for 1GHz – 26.5GHz.

Correlation measurements were performed below 30MHz between 10m ALSE and Open Field site according to FCC KDB 414788 D01 Radiated Test Site v01r01 section 2. All readings were within the acceptable tolerance.

Radiated measurements were performed on the X, Y and Z orientation of the EUT. Data is presented with the worst-case configuration (the configuration which resulted in the highest emission levels).

4.5.3 Field Strength Calculation

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF – AG; if measurement is performed at a distance other than specified in the rule, a Distance Correction Factor (DCF) shall be added.

Where FS = Field Strength in dB(μV/m)
RA = Receiver Amplitude (including preamplifier) in dB(μV); AF = Antenna Factor in dB(1/m)
CF = Cable Attenuation Factor in dB; AG = Amplifier Gain in dB

Assume a receiver reading of 52.0 dB(μV) is obtained. The antennas factor of 7.4 dB(1/m) and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving field strength of 32 dB(μV/m). This value in dB(μV/m) was converted to its corresponding level in μV/m.
RA = 52.0 dB(μV)
AF = 7.4 dB(1/m)
CF = 1.6 dB
AG = 29.0 dB
FS = 52.0+7.4+1.6-29.0 = 32 dB(μV/m).
Level in μV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m.

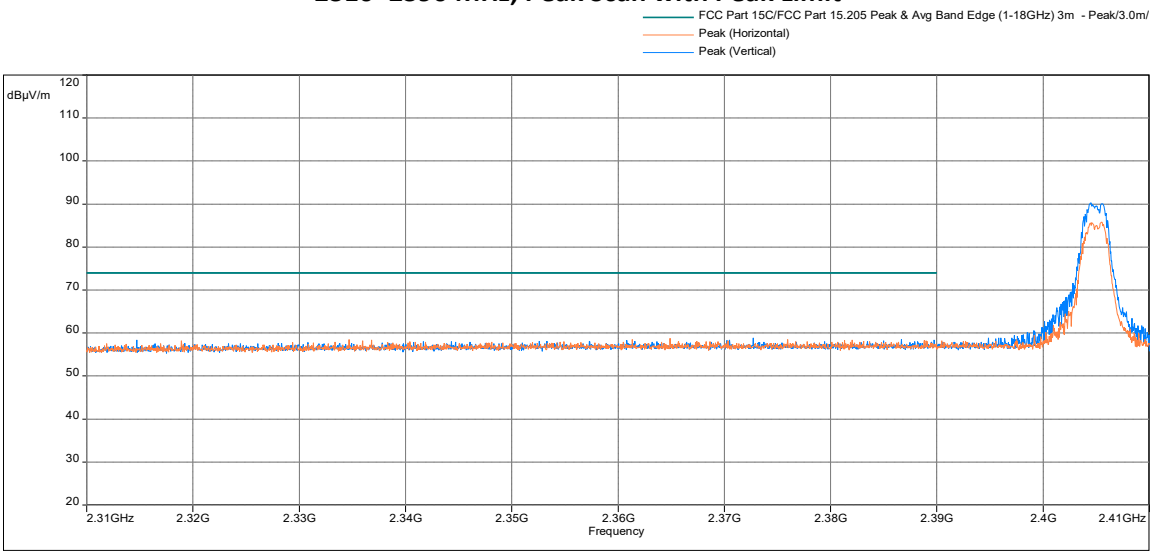
4.5.4 Test Results

All testing in this section were performed by radiated measurements.

Tested By	Test Date	Results
Aaron Chang / Gabriel Carreon	February 23, 2021	Complies

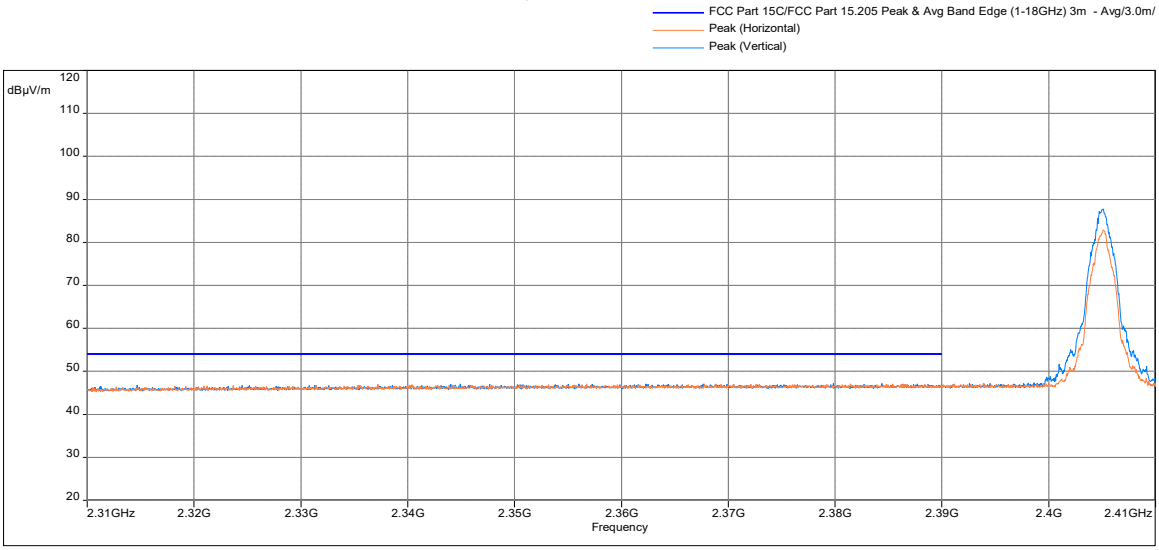
Test Results: 15.209/15.205 Radiated Restricted Band Emissions

Out-of-Band Radiated spurious emissions at the Band-edge @3m distance
2310–2390 MHz, Peak Scan with Peak Limit



Freq. MHz	Peak@3m dB(uV/m)	Peak Limit dB(µV/m)	Margin dB	Height m	Azimuth deg	Polarity	Correction dB
2390.000	58.55	74	-11.24	1.01	30	Vertical	-14.28

Out-of-Band Radiated spurious emissions at the Band-edge @3m distance
2310–2390 MHz, Ave Scan with Ave Limit



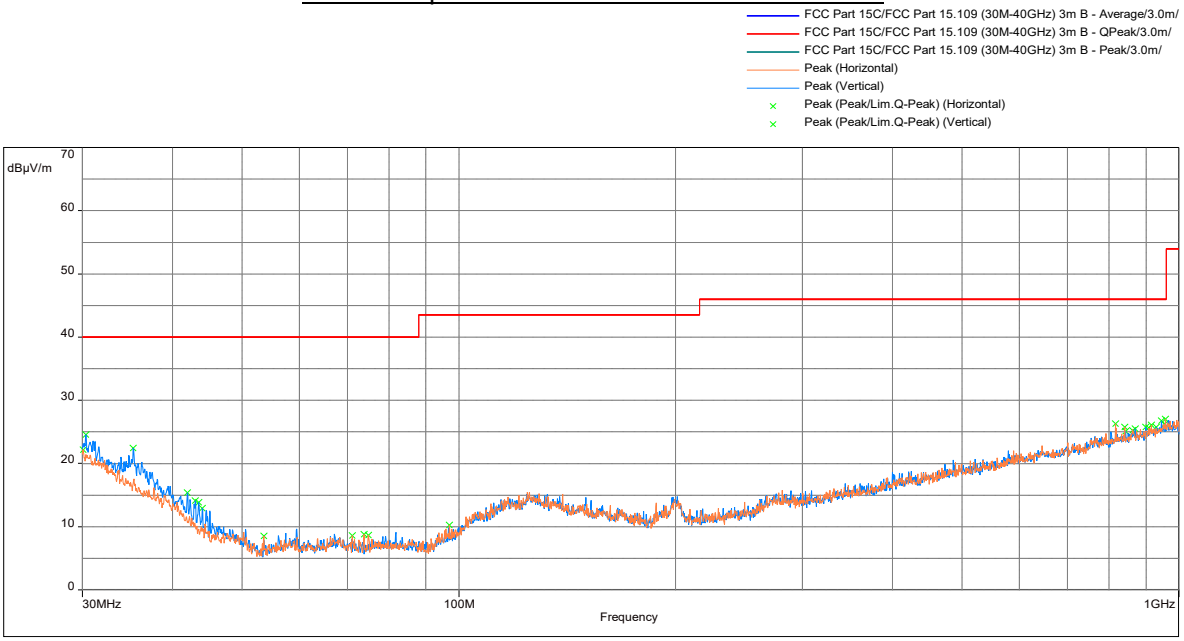
Freq. MHz	Peak@3m dB(uV/m)	Avg Limit dB(µV/m)	Margin dB	Height m	Azimuth deg	Polarity	Correction dB
2483.533	45.76	54	-8.24	2.5	42.52	Horizontal	36.48

Results	Complies

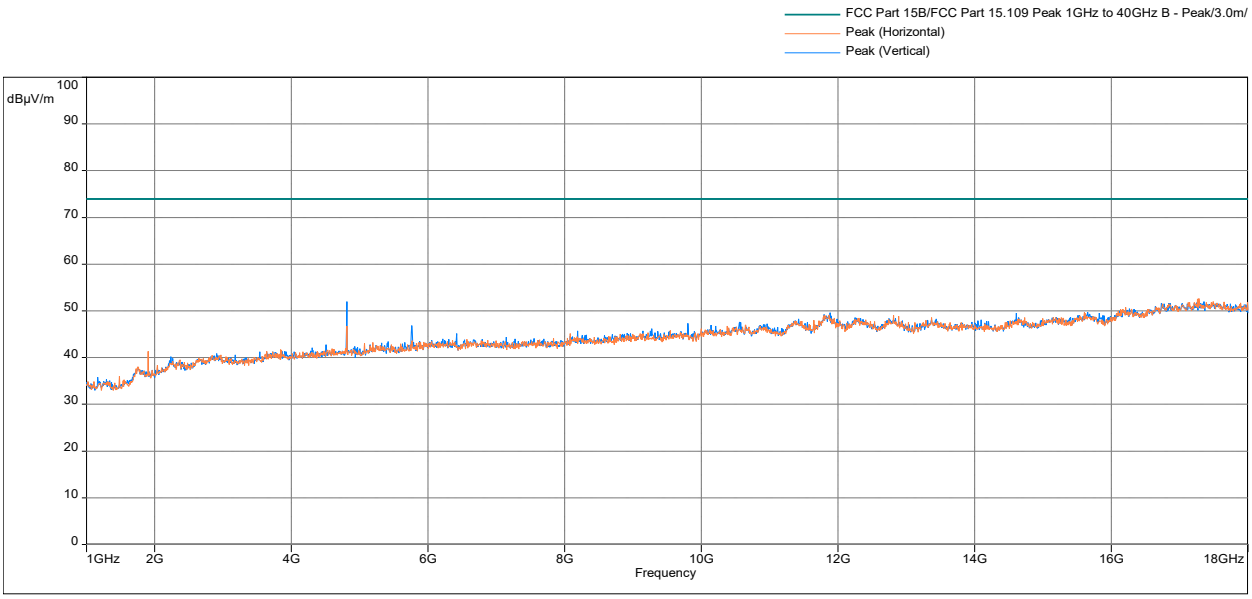
Out-of-Band Radiated Spurious Emissions

Test Results: 15.209 Radiated Spurious Emissions, Tx at 2405MHz

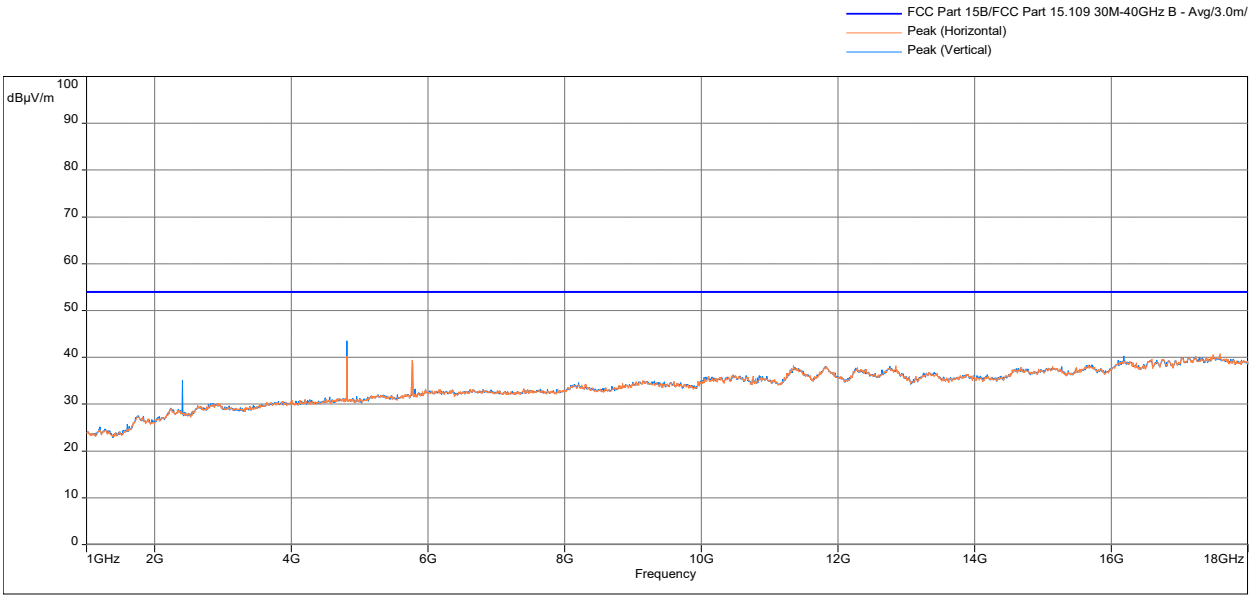
Radiated Spurious Emissions 30 MHz - 1000 MHz



Radiated Spurious Emissions 1000 - 18000 MHz, Peak Scan vs Peak Limit



Radiated Spurious Emissions 1000 - 18000 MHz, Ave Scan vs Ave Limit



Test Results: 15.209 Radiated Spurious Emissions, Tx at 2405 MHz

Frequency (MHz)	QPeak@ 10m (dBµV/m)	Lim. QPeak @10m (dBµV/m)	Margin (dB)	Height (m)	Angle (°)	Polarity	Correction (dB)
30.323	24.58	40.00	-15.42	2.00	359.99	Vertical	-5.26
35.303	22.44	40.00	-17.56	1.00	333.83	Vertical	-9.17
30.097	22.19	40.00	-17.81	3.00	359.99	Horizontal	-5.09
956.964	26.99	46.00	-19.01	4.00	116.96	Horizontal	-0.52
946.100	26.73	46.00	-19.27	4.00	359.93	Vertical	-0.76
816.347	26.26	46.00	-19.74	4.00	1.42	Horizontal	-2.98

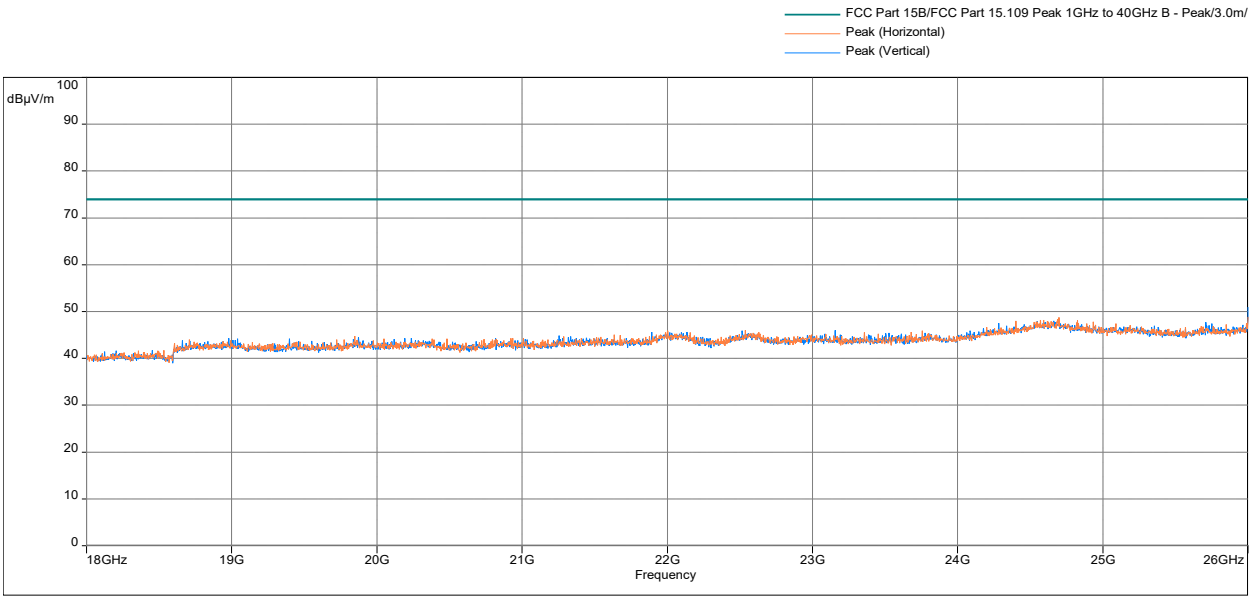
Note:

- Correction = AF + CF – Preamp
- No Spurious emissions were detected in the frequency ranges 9 kHz to 30MHz that is within 20dB margin.

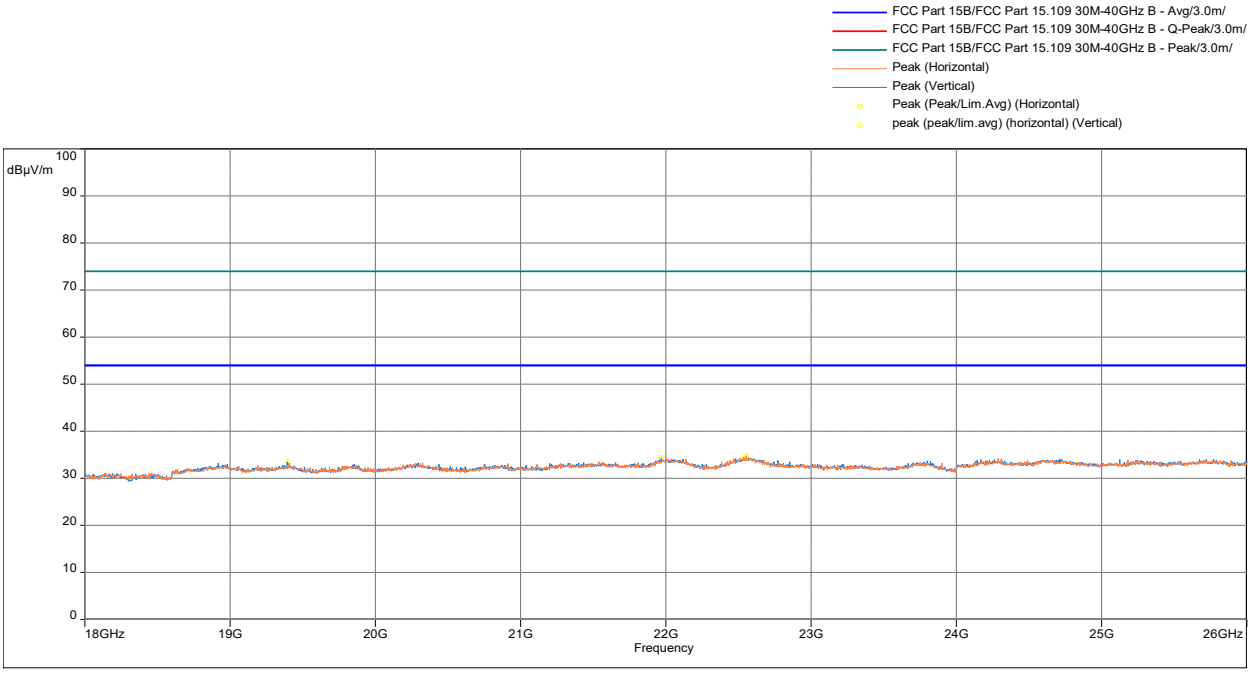
Freq. (MHz)	Detector Mode PK/QP/AV	FS (dBµV/m)	PK/AV Limit dB(µV/m)	Margin (dB)	Angle (°)	Polarity	Correction (dB)
17284.870	Peak	52.67	74.0	-21.33	83.20	Horizontal	8.05
17277.500	Peak	52.19	74.0	-21.81	239.51	Vertical	7.97
4808.567	Peak	52.01	74.0	-21.99	276.73	Vertical	-6.57
4808.567	Average	43.51	54.0	-10.49	355.11	Vertical	-6.57
17590.300	Average	40.82	54.0	-13.18	350.86	Horizontal	8.07
17588.030	Average	40.41	54.0	-13.59	83.77	Vertical	8.10

Note: Correction = AF + CF - Preamp

Radiated Spurious Emissions 18000 - 26000 MHz, Peak Scan vs Peak Limit



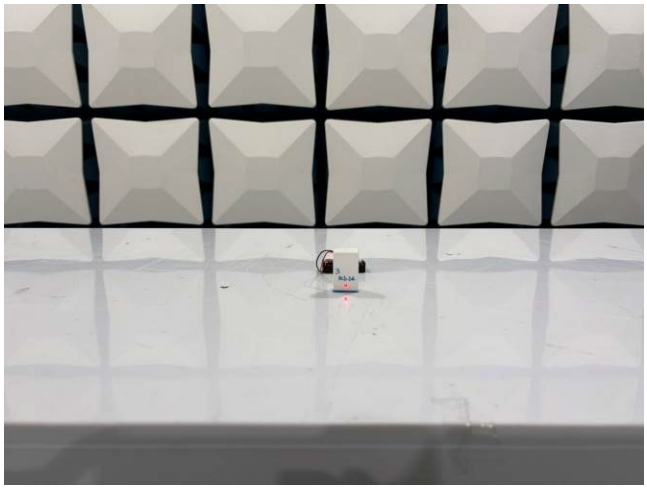
Radiated Spurious Emissions 18000 - 26000 MHz, Ave Scan vs Ave Limit

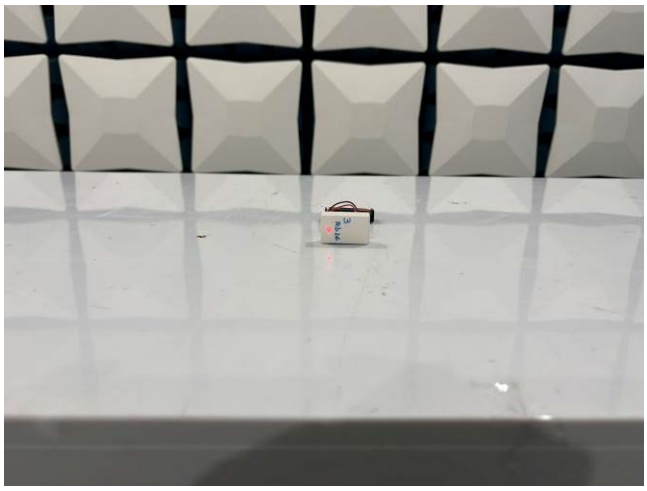


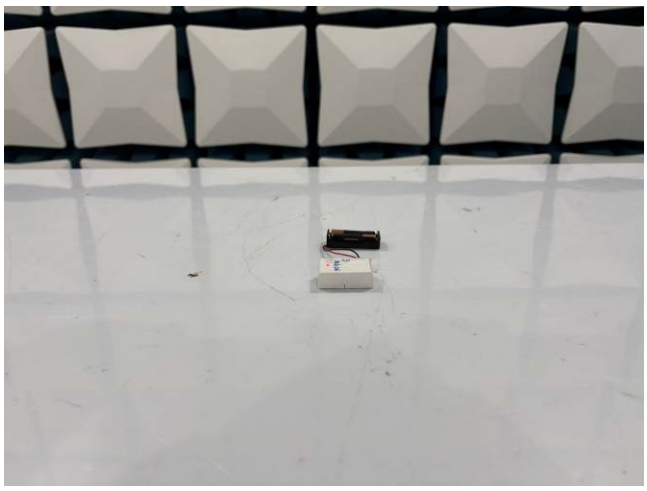
Results	**Complies**

4.5.5 Test Setup Configuration

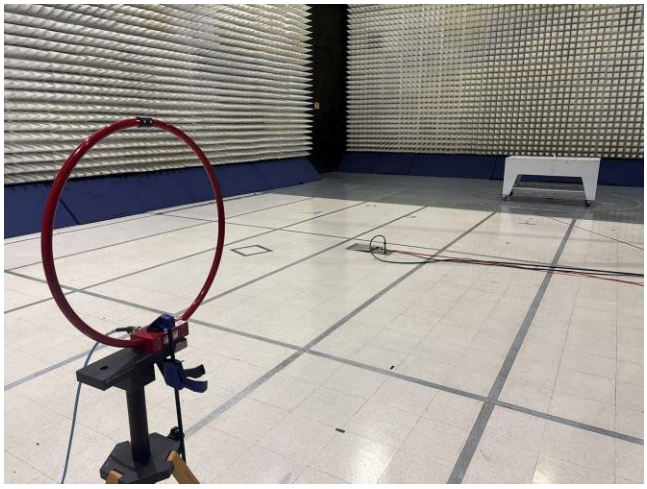
The following photographs show the testing configurations used.

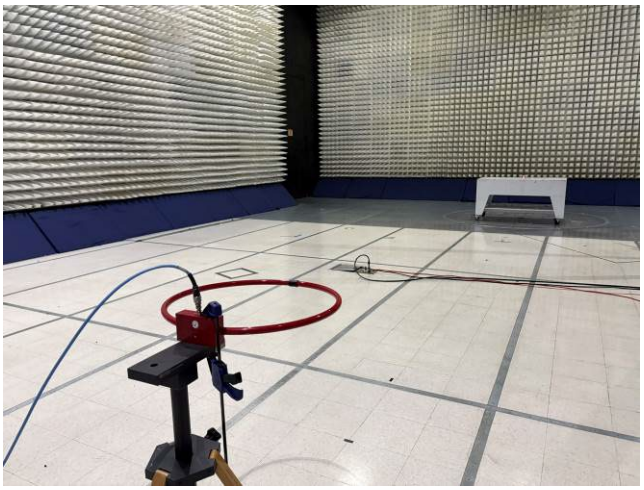




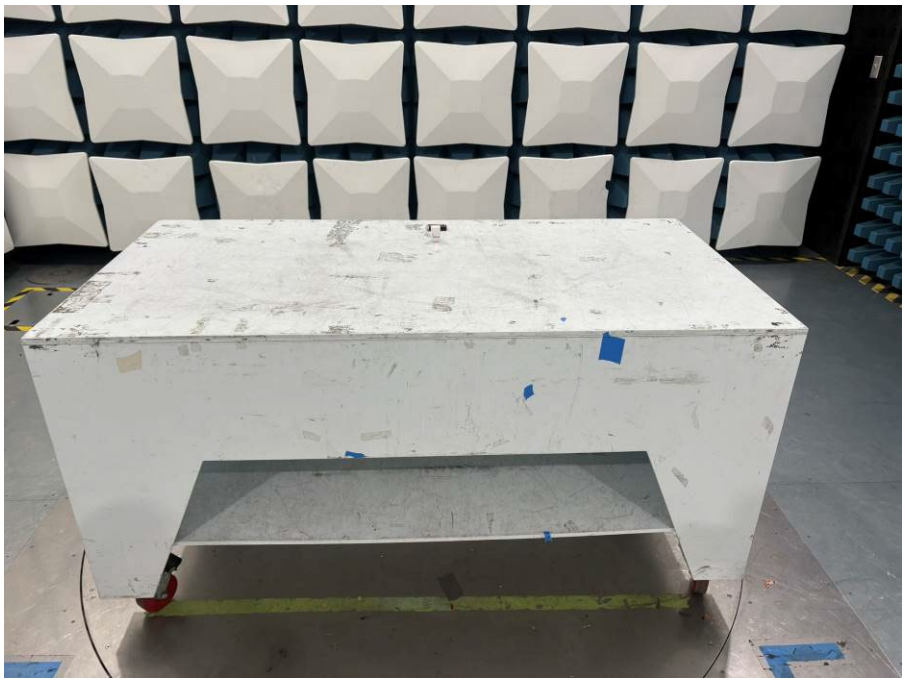


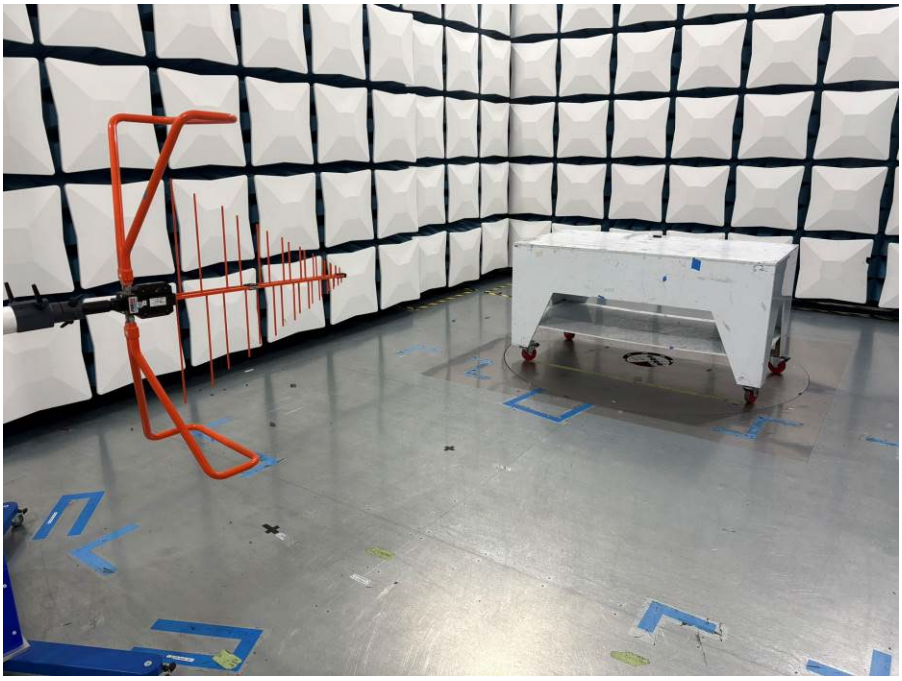
4.5.5 Test Setup Configuration (Continued)



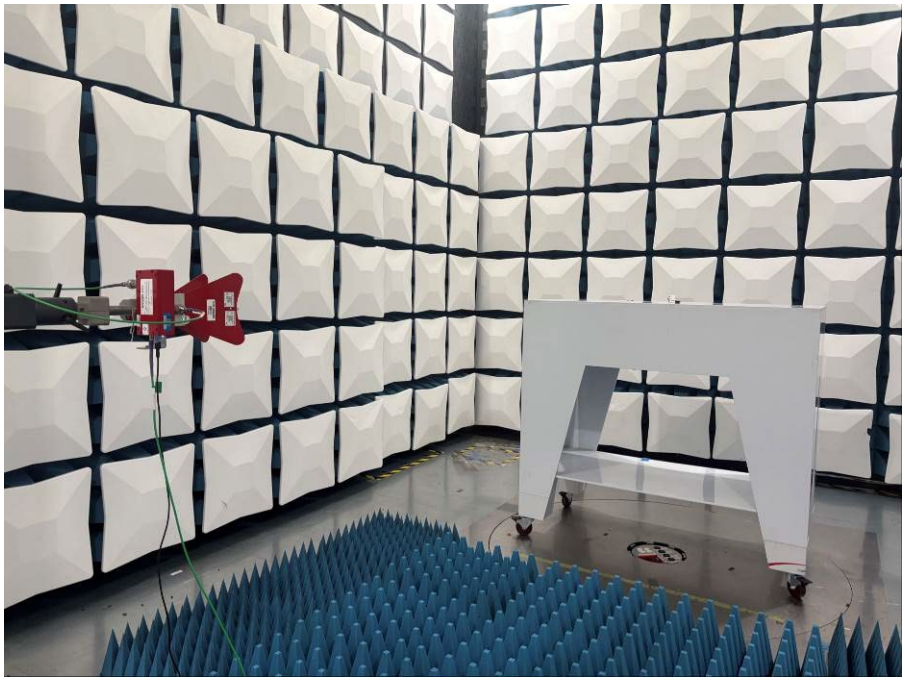


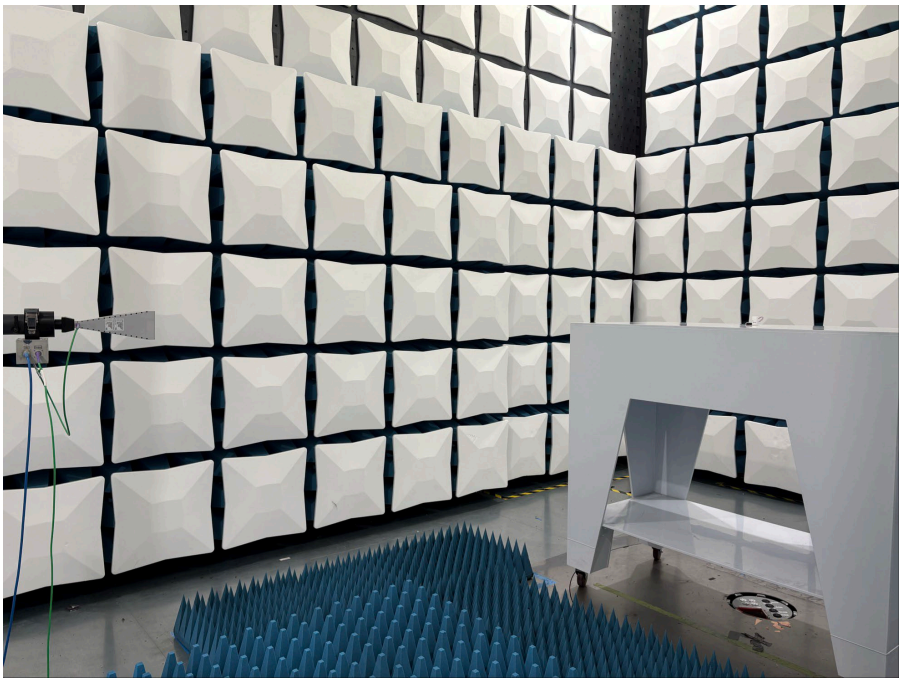
4.5.5 Test Setup Configuration (Continued)





4.5.5 Test Setup Configuration (Continued)





4.6 AC Line Conducted Emission
FCC: 15.207; RSS-GEN;

4.6.1 Requirement

Frequency Band MHz	Class B Limit dB(μV)		Class A Limit dB(μV)	
	Quasi-Peak	Average	Quasi-Peak	Average
0.15-0.50	66 to 56 *	56 to 46 *	79	66
0.50-5.00	56	46	73	60
5.00-30.00	60	50	73	60

*Note: *Decreases linearly with the logarithm of the frequency. At the transition frequency the lower limit applies.*

4.6.2 Procedure

Measurements are carried out using quasi-peak and average detector receivers in accordance with CISPR 16. An AMN is required to provide a defined impedance at high frequencies across the power feed at the point of measurement of terminal voltage and also to provide isolation of the circuit under test from the ambient noise on the power lines. An AMN as defined in CISPR 16 shall be used.

The EUT is located so that the distance between the boundary of the EUT and the closest surface of the AMN is 0.8m.

Where a flexible mains cord is provided by the manufacturer, this shall be 1m long or if in excess of 1m, the excess cable is folded back and forth as far as possible so as to form a bundle not exceeding 0.4m in length.

The EUT is arranged and connected with cables terminated in accordance with the product specification.

Conducted disturbance is measured between the phase lead and the reference ground, and between the neutral lead and the reference ground. Both measured values are reported.

The EUT, where intended for tabletop use, is placed on a table whose top is 0.8m above the ground plane. A vertical, metal reference plane is placed 0.4m from the EUT. The vertical metal reference-plane is at least 2m by 2m. The EUT shall be kept at least 0.8m from any other metal surface or other ground plane not being part of the EUT. The table is constructed of non-conductive materials. Its dimensions are 1m by 1.5m, but may be extended for larger EUT.

Floor standing EUT are placed on a horizontal metal ground plane and isolated from the ground plane by resting on an insulating material. The metal ground plane extends at least 0.5m beyond the boundaries of the EUT and has minimum dimensions of 2m by 2m.

Equipment setup for conducted disturbance tests followed the guidelines of ANSI C63.10.

4.6.3 Test Result

Not applicable. The EUT is battery powered only.

5.0 List of Test Equipment

Measurement equipment used for compliance testing utilized the equipment on the following list:

Asset #	Description	Manufacturer	Model	Cal Date	Cal Due
01659	EMI Test Receiver 1Hz-44GHz	Rohde & Schwarz	ESW44	10/24/2025	10/24/2026
00961	EMI Test Receiver 40GHz	Rohde & Schwarz	ESU40	04/08/2025	04/08/2026
02097	Trilog Antenna	Schwarzbeck	VULB 9168	09/17/2026	09/17/2026
00415	9kHz-1GHz Pre-amplifier	Sonoma Instrument	310N	05/16/2025	05/16/2026
01713	9kHz-1GHz Pre-amplifier	Sonoma Instrument	310N	02/11/2026	02/11/2027
01573	9kHz-30MHz Loop Antenna (Passive)	ETS Lindgren	6512	12/12/2025	12/12/2026
02114	1-18GHz Horn Antenna	RF Spin	DRH18-E	10/09/2025	10/09/2026
02115	18-40GHz Horn Antenna	RF Spin	DRH0844	10/13/2025	10/13/2026
02113	1-18GHz Preamplifier	EMC Instruments	EMC118A45SE	10/14/2025	10/14/2026
02112	18-40GHz Premplifier	EMC Instruments	EMC184045SE	10/14/2025	10/14/2026
02010	1-40GHz RF Cable	Huber+Suhner	SF550S/11SK/11SK	06/23/2025	06/23/2026
01616	10kHz - 1GHz RF Cable	TRU Corp.	TRU Core 300	05/21/2025	05/21/2026
01470	10kHz - 1GHz RF Cable	TRU Corp.	TRU Core 300	09/10/2025	09/10/2026
01339	10kHz - 1GHz RF Cable	TRU Corp.	TRU Core 300	09/10/2025	09/10/2026
01344	1 - 18GHz RF Cable	TRU Corp.	TRU Core 300	09/15/2025	09/15/2026
02249	1 - 40GHz RF Cable	MEGA PHASE	TM40-K1K1-59	11/13/2025	11/13/2026
02222	1 - 40GHz RF Cable	Absolute EMC	50586-236	11/13/2025	11/13/2026
02098	1 - 40GHz RF Cable	Absolute EMC	50586-39	08/20/2025	08/20/2026
02160	3 Meter Chamber	APAmericas Inc.	3 meter Chamber	#	#
00984	Radio Frequency Shielded System	Panashield	10 Meter Chamber	01/16/2026	01/19/2026

No Calibration required

Software used for emission compliance testing utilized the following:

Name	Manufacturer	Version
BAT-EMC	Nexio	2024.0.19.1
RS Commander	Rohde Schwarz	1.6.4

6.0 Document History

Revision/ Job Number	Writer Initials	Reviewers Initials	Date	Change
1.0 / G106347575	GC	ML	March 09, 2026	Original document
2.0 / G106347575	KT	ML	March 25, 2026	Per manufacture, updated antenna gain from +2.1dBi to +2.8dBi. Updated reference standard to ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 in section 2.4 Added notes for 9kHz – 30MHz spurious emission.

END OF REPORT