TEST REPORT

Test Report Number:	N2507R-1261
Project Number:	A2024-10614
Applicant:	KORNIX TECHNOLOGY CORP.
Address of Applicant:	#646, IS-BIZ Tower, 25, Deokcheon-ro 152 beongil, Manan-gu, Anyang-si, Gyeonggi-do, Korea
Manufacturer and Country	KORNIX TECHNOLOGY CORP.
Address of Manufacturer/Factory:	#646, IS-BIZ Tower, 25, Deokcheon-ro 152 beongil, Manan-gu, Anyang-si, Gyeonggi-do, Korea

Equipment Under Test (EUT)

Product Name:	Leak Detector
Model No.:	SVSLD

■ **FCC ID** : 2BMCG-SVSMLD □ **IC**

Applicable standards:	FCC CFR Title 47 Part 15 Subpart C (15.247/15.209/15.35) ANSI C63.10-2020 KDB 558074 D01
Date of Test:	Jul. 7, 2025 to Jul. 25, 2025
Date of report issued:	Jul. 28, 2025
Test Result:	Compliance *

Prepared By: ***Date:*** Jul. 28. 2025

Gilgu, Oh

(Test Engineer)

Check By: ***Date:*** Jul. 28. 2025

Dongjin, Seo

(Chief Engineer)

REPORT REVISION HISTORY

Date	Revision	Page No
Jul. 28. 2025	Originally Issued	-

Contents

1. General Information

1.1 General Description of EUT

Product Name	Leak Detector
Model Name	SVSLD
Variant Model Name	N/A
FCC ID	2BMCG-SVSMLD
Operation Frequency	917.5 MHz
Number of Channel	1 CH
Antenna Specification	PCB Pattern Antenna
Antenna Gain	-2.7 dBi
Power supply	3.0 V (CR2450 Coin battery)

1.2 EUT Test Frequency

The EUT was operated in the engineering mode to fix Tx frequency that was for the purpose of the test measurements. All testing shall be performed under maximum output power condition, and to measure its highest possible emissions level.

Channel	Frequency [MHz]
Single	917.5

1.3 Test Condition

	Normal voltage
DC Power	3.0

1.4 Test Performed

FCC Designation No.: KR0157

KOLAS Accreditation No.: KT511

Laboratory		NTREE Co., Ltd.
1st laboratory Address	:	228-60, Saneop-ro 155beon-gil, Gwonseon-gu, Suwon-si, Gyeionggi-do, 16648, Republic of Korea
Telephone	:	+82-31-893-0999
Facsimile	:	+82-31-297-9911
2nd laboratory Address	:	135-1, Donghwagongdan-ro, Munmak-eup, Wonju-si, Gangwon-do, Republic of Korea
Telephone	:	+82-33-747-449
Facsimile	:	-

SITE MAP

1st laboratory

2nd laboratory

* The test was performed at 1st laboratory.

1.5 Test Instruments List

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Due date (mm-dd-yy)
1	Signal Analyzer	ROHDE & SCHWARZ	FSV40	100994	03-05-26
2	DC Power Supply	AGILENT	6632B	19051	08-21-25
3	Signal Generator	ROHDE & SCHWARZ	SMB100A	177568	03-05-26
4	Tri-Log Antenna	ROHDE & SCHWARZ	VULB9168	721	04-19-26
5	LOOP ANTENNA	ROHDE & SCHWARZ	FMZB1519	1519-046	05-20-26
6	Test Receiver	ROHDE & SCHWARZ	ESR7	101302	03-05-26
7	Attenuator	AEROFLEX	40AH2W-20	242001	08-22-25
8	Horn Antenna	Schwarzbeck	BBHA 9120D	02083	10-15-25
9	Amplifier	TESTEK	TK-PA18H	160006-L	03-06-26
10	Amplifier	TESTEK	TK-PA01S	200103-L	10-30-25
11	High Pass Filter	WAINWRIGHT INSTRUMENTS GMBH	WHJS1000-10EE	2	11-22-25

1.6 Summary of tests

FCC Rules	Description of Test Item	Test Result
Part 15.247(a)(2)	Transmitter Minimum 6 dB Bandwidth	Pass
Part 15.35(c)	Transmitter Duty Cycle	Pass
Part 15.247(e)	Transmitter Power Spectral Density	Pass
Part 15.247(b)(3)	Transmitter Maximum Peak Output Power	Pass
Part 15.247(d)/15.209(a)	Transmitter Radiated Emissions	Pass
Part 15.247(d)/15.209(a)	Transmitter Band Edge Radiated Emissions	Pass

1.7 Measurement uncertainty

For the test methods, according to the present document, the measurement uncertainty figures shall be calculated in accordance with TR100028-1 [2] and shall correspond to an expansion factor (coverage factor) *k*=1.96 or *k*=2 (which provide confidence levels of respectively 95% and 95.5% in the case where the distributions characterizing the actual measurement uncertainties are normal.

Parameter	Uncertainty
Transmitter output power (Conducted)	± 1.97 dB
Radiated spurious emission (Below 1 GHz)	± 5.04 dB
Radiated spurious emission (Above 1 GHz)	± 5.1 dB

2. Test results

2.1 Transmitter Minimum 6 dB Bandwidth

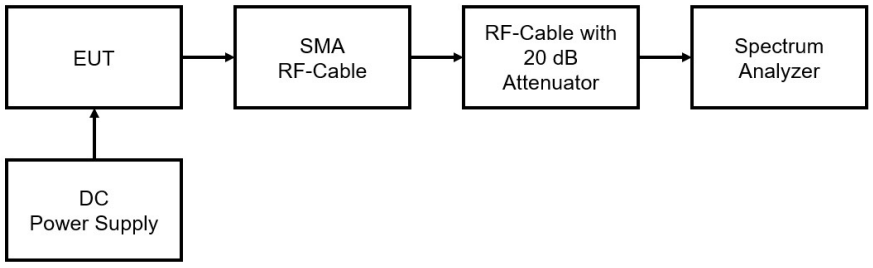
2.1.1 Test Summary

FCC Reference:	Part 15.247(a)(2)
Test Method Used:	FCC KDB 558074 Section 8.2 referencing ANSI C63.10 Section 11.8.1 Option1

2.1.2 Environmental Condition

Temperature (℃):	23.8
Relative Humidity (%):	51.2

2.1.3 Test configuration



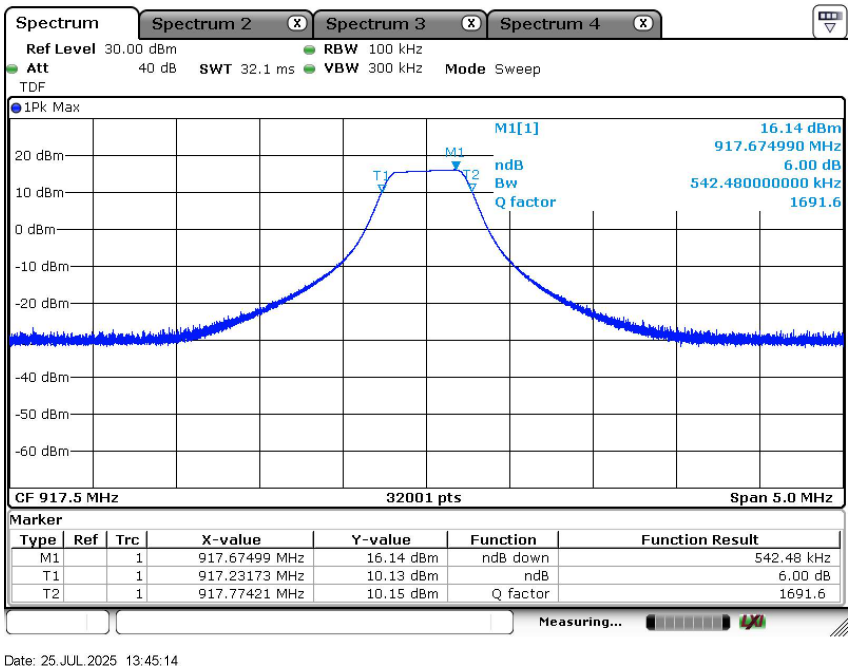
Note(s):

1. The 6 dB DTS bandwidth tests were performed using a spectrum analyzer in accordance with FCC KDB 558074 Section 8.2 referring ANSI C63.10:2020 Section 11.8.1 Option 1 measurement procedure.

2. The spectrum analyzer resolution bandwidth was set to 100 kHz and video bandwidth 300 kHz. A peak detector was used, sweep time was set to auto and the trace mode was Max Hold. The DTS bandwidth was measured at 6 dB down from the peak of the signal.

2.1.4 Test Result

Channel	6 dB bandwidth (kHz)	Limit (kHz)	Margin (kHz)	Result
Single	542.480	≥ 500	42.480	Complied



Result: Pass

2.2 Transmitter Duty Ctycle

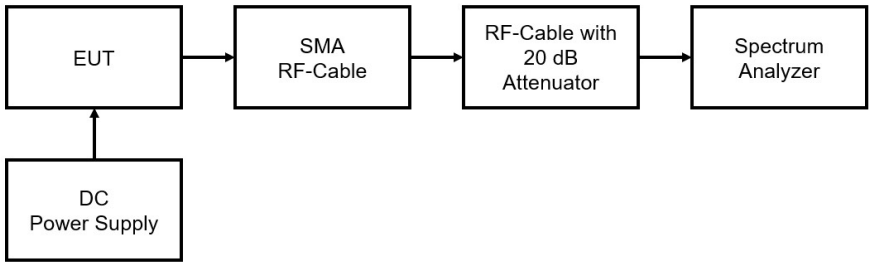
2.2.1 Test Summary

FCC Reference:	Part 15.35(c)
Test Method Used:	FCC KDB 558074 Section 6.0 referencing ANSI C63.10 Section 11.6

2.2.2 Environmental Condition

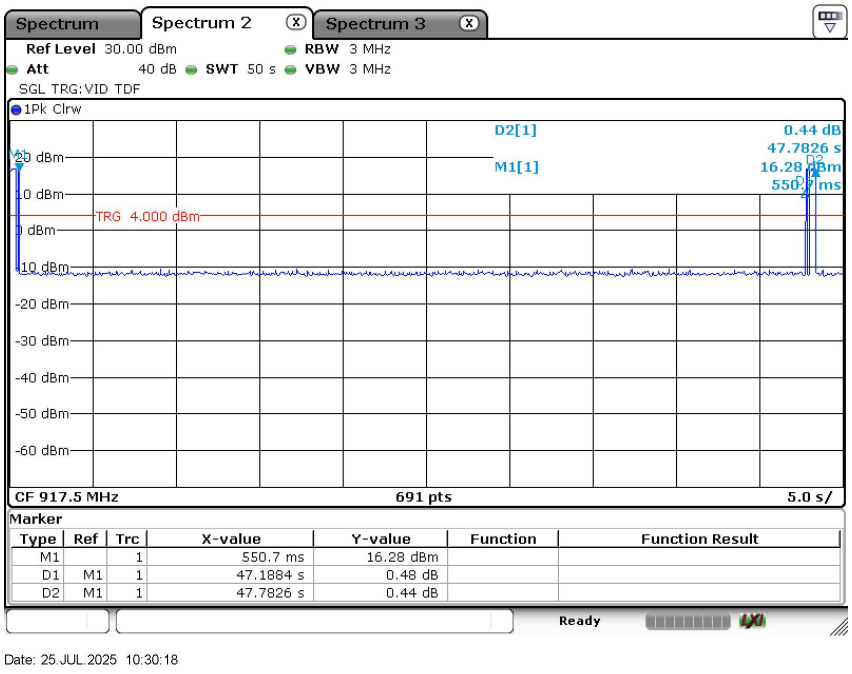
Temperature (℃):	23.8
Relative Humidity (%):	51.2

2.2.3 Test configuration



2.2.4 Test Result

Pulse On Time (T_{ON}) (ms)	Pulse Period (T_{ON} + T_{OFF}) (ms)	Duty Cycle (%)
594.2	47 782.6	1.243



Date: 25.JUL.2025 10:30:18

2.3 Transmitter power Spectral Density

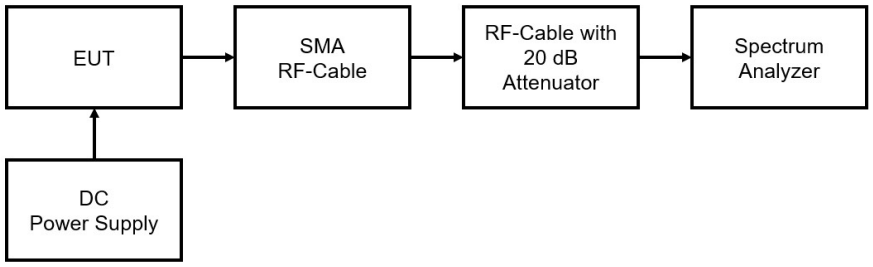
2.3.1 Test Summary

FCC Reference:	Part 15.247(e)
Test Method Used:	FCC KDB 558074 Section 8.4 referencing ANSI C63.10 Section 11.10.2

2.3.2 Environmental Condition

Temperature (℃):	23.8
Relative Humidity (%):	51.2

2.3.3 Test configuration



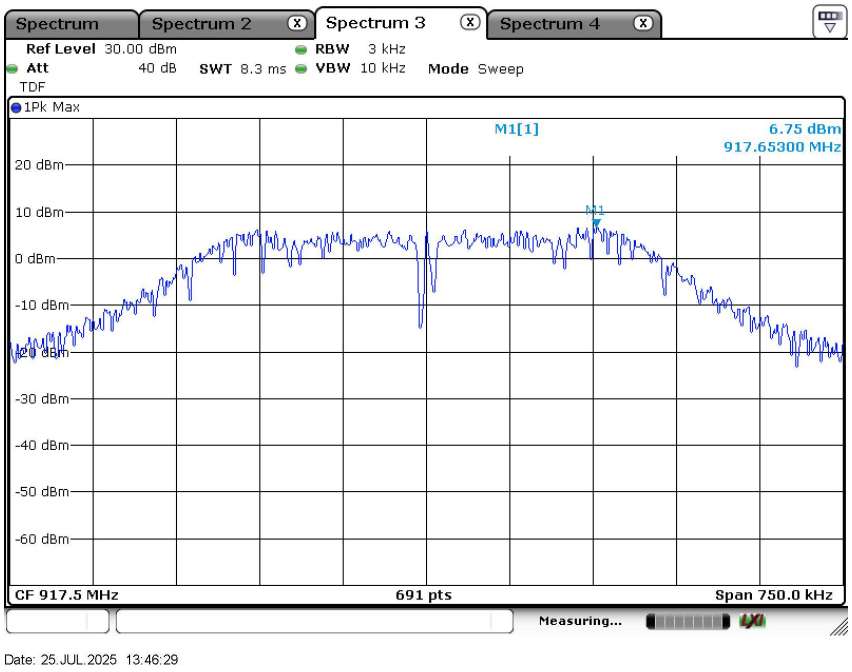
Note(s):

1. The EUT was transmitting at < 98% duty cycle and testing was performed in accordance with ANSI C63.10 Section 11.10.2 Method PKPSD.

2. The spectrum analyzer resolution bandwidth was set to 3 kHz and video bandwidth 10 kHz. A peak detector was used and sweep time was set to Auto. The span was set to 1.5 times the DTS bandwidth. The highest peak of the measured signal was recorded.

2.3.4 Test Result

Channel	Peak Output Power (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)	Result
Single	6.75	8.0	1.25	Complied



Result: Pass

2.4 Transmitter Maximum Peak Output Power

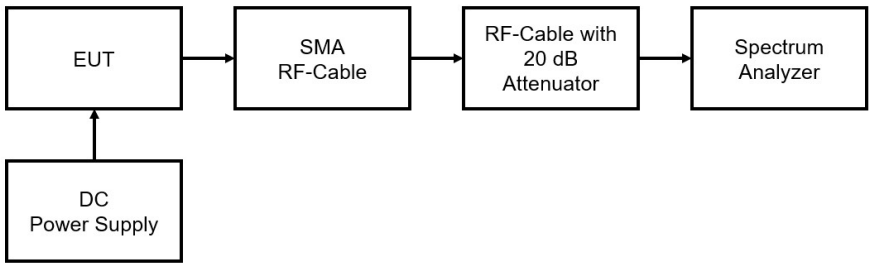
2.4.1 Test Summary

FCC Reference:	Part 15.247(b)(3)
Test Method Used:	FCC KDB 558074 Section 8.3.1.1 referencing ANSI C63.10 Section 11.9.1.1

2.4.2 Environmental Condition

Temperature (℃):	23.8
Relative Humidity (%):	51.2

2.4.3 Test configuration



Note(s):

1. The conducted power tests performed using a spectrum analyzer in accordance with FCC KDB 558074 Section 8.3.1.1 with the RBW ≥ DTS bandwidth referencing ANSI C63.10 Section 11.9.1.1

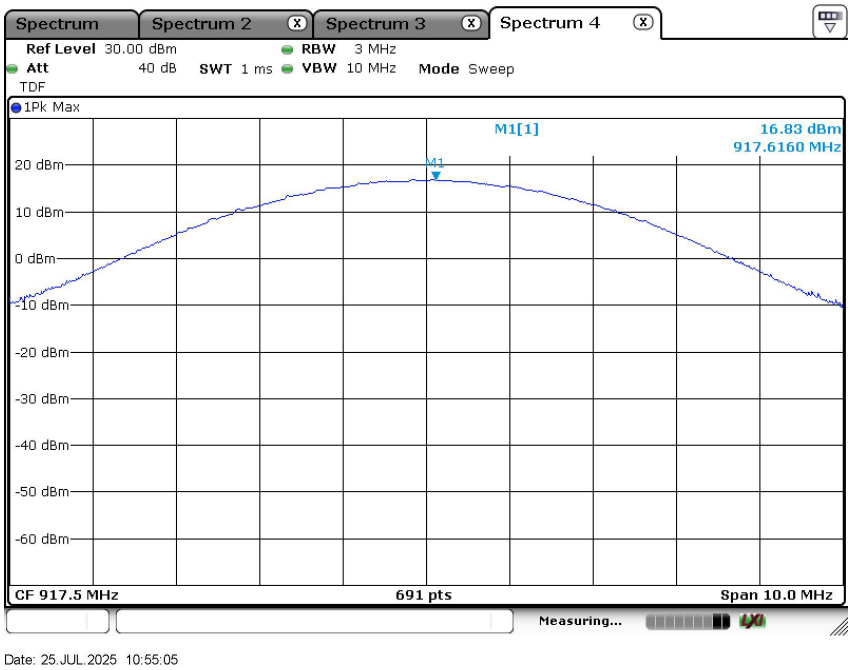
2. The spectrum analyzer resolution bandwidth was set to 3 MHz and video bandwidth of 10 MHz. A peak detector was used, sweep time was set to auto and trace mode was Max Hold. The span was set to 10 MHz. A marker was placed at the peak of the signal and the results recorded in the table below.

3. The declared antenna gain (in dBd) was added to conducted power to obtain the ERP.

2.4.4 Test Result

Channel	Conducted Peak Power (dBm)	Conducted Peak Power Limit (dBm)	Margin (dB)	Result
Single	16.83	30.0	1.25	Complied

Channel	Conducted Peak Power (dBm)	Declared Antenna Gain (dBi)	EIRP (dBm)	De Facto EIRP Limit (dBm)	Margin (dB)	Result
Single	16.83	-2.70	14.13	36.0	21.87	Complied



Result: Pass

2.5 Transmitter Radiated Emissions (9 kHz to 30 MHz)

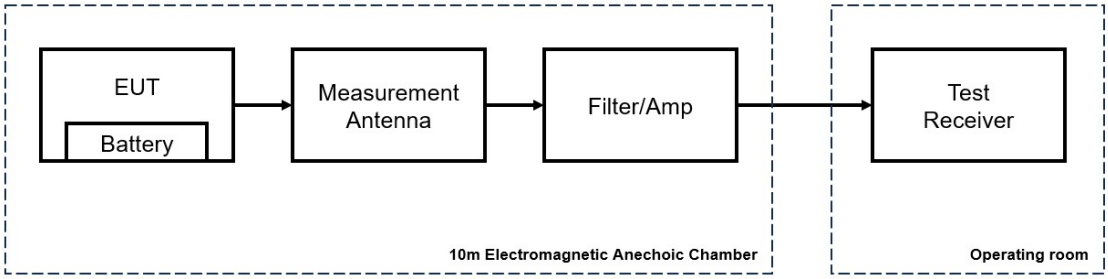
2.5.1 Test Summary

FCC Reference:	Part 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 referencing ANSI C63.10 Section 11.11 and 11.2 ANSI C63.10 Section 6.3 and 6.4
Frequency Range	9 kHz to 30 MHz

2.5.2 Environmental Condition

Temperature (℃):	19.6
Relative Humidity (%):	60.3

2.5.3 Test configuration



Note(s):

1. Measurements below 30 MHz were performed in a 10m Electromagnetic Anechoic Chamber at a distance of 3 meters. The EUT was placed at a height of 80 cm above the reference ground plane in the central axis of the chamber turntable.

2.5.4 Test Result

Frequency (MHz)	Loop Antenna Orientation	QuasiPeak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
No spurious emissions were detected					

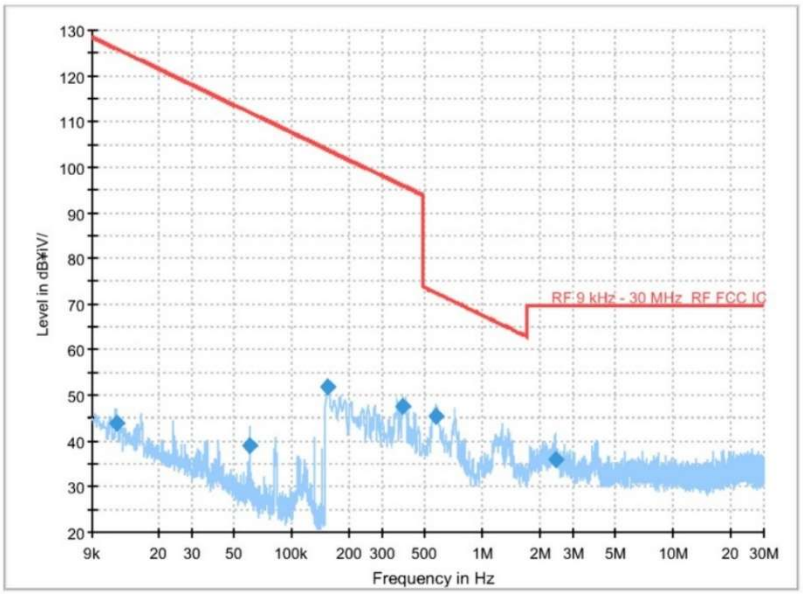
Plot: 9 kHz – 30 MHz (ground parallel)

9 kHz to 30 MHz 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	Ground parallel, Z-axis



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Comment
0.012004	43.86	126.01	82.15	1000.0	0.200	H	321.0	9:59:41 AM - 7/3/2025
0.059912	38.90	112.05	73.15	1000.0	0.200	H	18.0	10:00:19 AM - 7/3/2025
0.154592	51.95	103.82	51.87	1000.0	9.000	H	342.0	10:01:00 AM - 7/3/2025
0.383060	47.48	95.94	48.46	1000.0	9.000	H	279.0	10:01:15 AM - 7/3/2025
0.572492	45.36	72.45	27.09	1000.0	9.000	H	328.0	10:01:29 AM - 7/3/2025
2.426637	35.93	69.54	33.61	1000.0	9.000	H	134.0	10:01:56 AM - 7/3/2025

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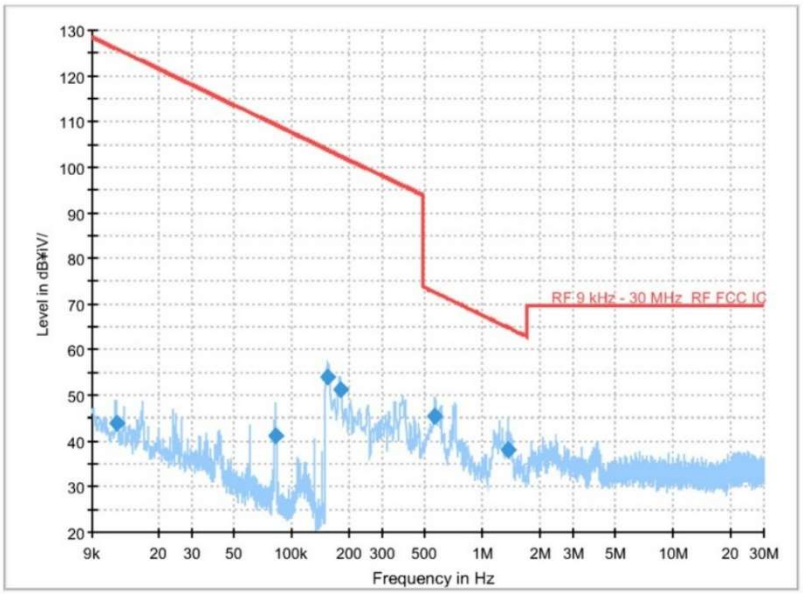
Plot: 9 kHz – 30 MHz (parallel)

9 kHz to 30 MHz 7/3/2025

Test Report

Common Information

Test Description:	A2024-10616
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	parallel, Z-axis



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Comment
0.012010	43.95	126.01	82.05	1000.0	0.200	H	313.0	9:20:10 AM - 7/3/2025
0.082000	41.07	109.32	68.25	1000.0	0.200	H	14.0	9:20:48 AM - 7/3/2025
0.154592	53.98	103.82	49.84	1000.0	9.000	H	329.0	9:21:27 AM - 7/3/2025
0.179850	51.37	102.50	51.13	1000.0	9.000	H	7.0	9:22:07 AM - 7/3/2025
0.564456	45.31	72.57	27.26	1000.0	9.000	H	0.0	9:22:15 AM - 7/3/2025
1.372702	38.08	64.85	26.78	1000.0	9.000	H	242.0	9:22:47 AM - 7/3/2025

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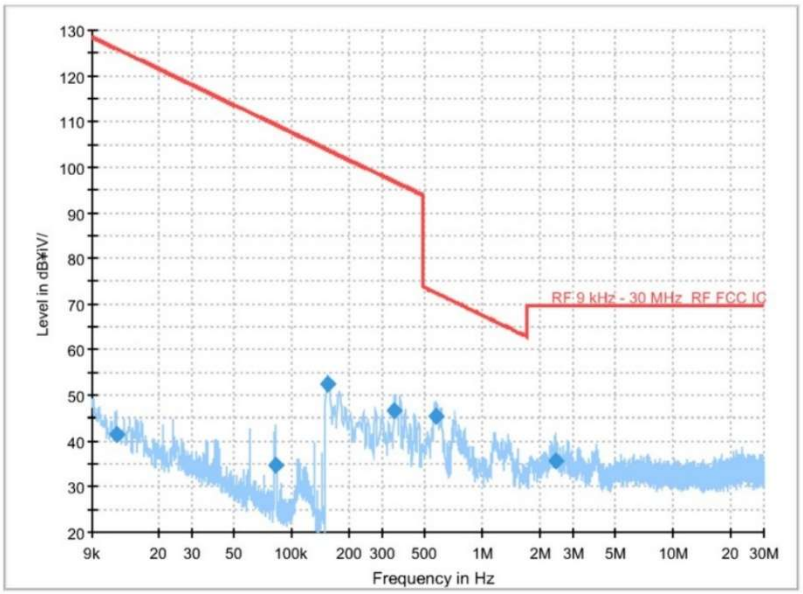
Plot: 9 kHz – 30 MHz (perpendicular)

9 kHz to 30 MHz 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	perpendicular, Z-axis



Final_Result

Frequency (MHz)	QuasiPeak (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Pol	Azimuth (deg)	Comment
0.012042	41.52	125.98	84.46	1000.0	0.200	V	353.0	9:44:32 AM - 7/3/2025
0.082271	34.85	109.30	74.45	1000.0	0.200	V	113.0	9:45:03 AM - 7/3/2025
0.154592	52.38	103.82	51.44	1000.0	9.000	V	243.0	9:45:25 AM - 7/3/2025
0.347469	46.57	96.79	50.22	1000.0	9.000	V	165.0	9:45:42 AM - 7/3/2025
0.569048	45.45	72.50	27.05	1000.0	9.000	V	224.0	9:45:57 AM - 7/3/2025
2.445006	35.74	69.54	33.80	1000.0	9.000	V	214.0	9:46:05 AM - 7/3/2025

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2.6 Transmitter Radiated Emissions (30 MHz to 1000 MHz)

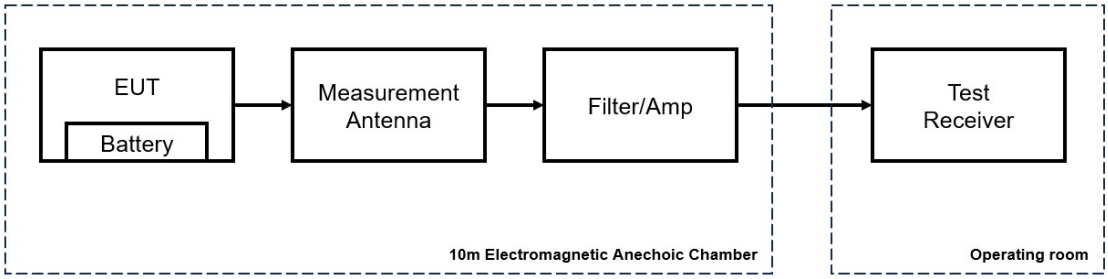
2.6.1 Test Summary

FCC Reference:	Part 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 referencing ANSI C63.10 Section 11.11 and 11.2 ANSI C63.10 Section 6.3 and 6.5
Frequency Range	30 MHz to 1000 MHz

2.6.2 Environmental Condition

Temperature (℃):	19.6
Relative Humidity (%):	60.3

2.6.3 Test configuration



Note(s):

1. Measurements below 1 GHz were performed in a 10m Electromagnetic Anechoic Chamber at a distance of 3 meters. The EUT was placed at a height of 80 cm above the reference ground plane in the central axis of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 m to 4 m.

2.6.4 Test Result

Frequency (MHz)	Tri-log Antenna Orientation	QuasiPeak Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
No spurious emissions were detected					

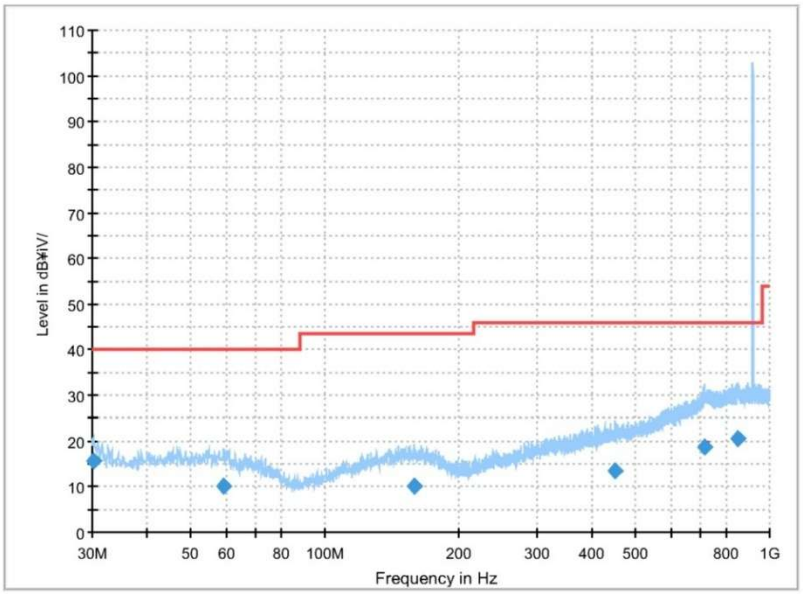
Plot: 30 MHz – 1 GHz

30 MHz to 1 GHz_Leakdetector 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Battery / Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	Z-axis



Final_Result

Frequency (MHz)	Quasi Peak (dBµV/m)	Margin (dB)	Meas. Time (ms)	Bandwidth (kHz)	Height (cm)	Pol	Azimuth (deg)	Comment
30.194000	15.62	24.38	2000.0	120.000	100.0	V	283.0	9:10:00 PM - 7/3/2025
59.294000	10.09	29.91	2000.0	120.000	250.0	H	168.0	9:12:13 PM - 7/3/2025
158.428000	9.97	33.55	2000.0	120.000	259.0	V	252.0	9:14:12 PM - 7/3/2025
448.555000	13.60	32.42	2000.0	120.000	319.0	H	22.0	9:16:22 PM - 7/3/2025
713.559000	18.81	27.21	2000.0	120.000	150.0	V	293.0	9:18:29 PM - 7/3/2025
845.479000	20.44	25.58	2000.0	120.000	259.0	V	149.0	9:20:28 PM - 7/3/2025

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2.7 Transmitter Radiated Emissions (1 GHz to 10 GHz)

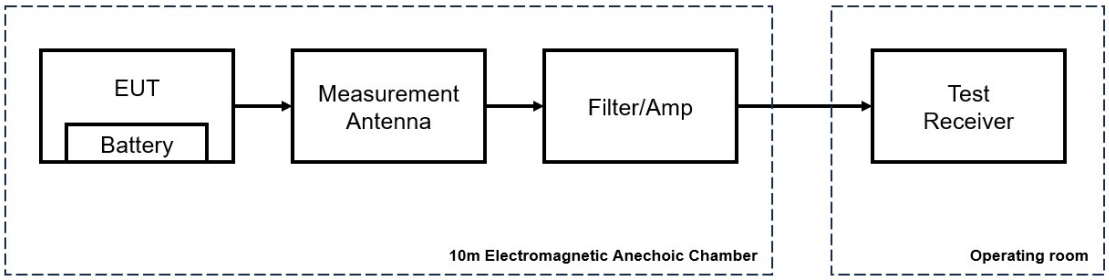
2.7.1 Test Summary

FCC Reference:	Part 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 & 8.6 referencing ANSI C63.10 Section 11.11 and 11.2 ANSI C63.10 Section 6.3 and 6.6
Frequency Range	1 GHz to 10 GHz

2.7.2 Environmental Condition

Temperature (℃):	19.6
Relative Humidity (%):	60.3

2.7.3 Test configuration



Note(s):

1. The measurements above 1 GHz were performed in a 10 m Electromagnetic Anechoic Chamber with RF absorbers on the floor at a distance of 3 meters. The EUT was placed at a height of 150 cm above the reference ground plane in the central axis of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 m to 4 m.

2.7.4 Test Result

Frequency (MHz)	Antenna Polarization	MaxPeak Level (dBμV/m)	Average Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Result
1 835.00	Horizontal	-	49.87	54.00	4.13	Complied
3 670.00	Horizontal	-	50.04	54.00	3.96	Complied
4 587.50	Horizontal	-	51.34	54.00	3.66	Complied
5 505.00	Horizontal	-	49.02	54.00	4.98	Complied

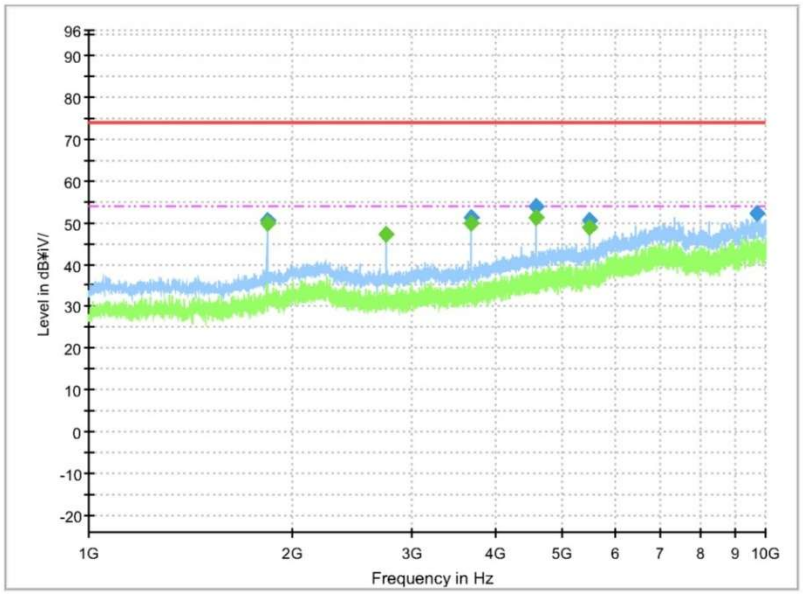
Plot: 1 GHz – 10 GHz

Above 1 GHz 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Operating Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Battery / Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	Z-axis



Final_Result

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
1835.000000	---	49.87	4.13	132.0	H	272.0	-13.3	4:28:08 PM - 7/3/2025
1835.000000	50.47	---	23.53	100.0	H	257.0	-13.3	4:20:07 PM - 7/3/2025
2752.500000	---	47.04	6.96	159.0	H	78.0	-12.9	4:25:01 PM - 7/3/2025
3670.000000	---	50.04	3.96	400.0	H	232.0	-11.1	4:26:39 PM - 7/3/2025
3670.000000	51.36	---	22.64	400.0	H	232.0	-11.1	4:17:12 PM - 7/3/2025
4587.500000	---	51.34	3.66	334.0	H	241.0	-7.4	4:31:06 PM - 7/3/2025
4587.500000	53.73	---	20.27	332.0	H	242.0	-7.4	4:23:09 PM - 7/3/2025
5505.000000	---	49.02	4.98	282.0	H	245.0	-5.2	4:29:41 PM - 7/3/2025
5505.000000	50.61	---	23.39	287.0	H	230.0	-5.2	4:21:42 PM - 7/3/2025
9703.500000	52.15	---	21.85	100.0	H	197.0	2.4	4:15:42 PM - 7/3/2025

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Result: Pass

2.8 Transmitter Band Edge Radiated Emissions

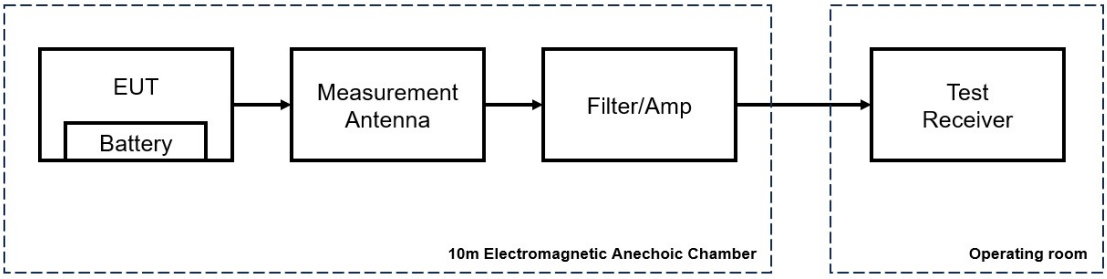
2.8.1 Test Summary

FCC Reference:	Part 15.247(d) & 15.209(a)
Test Method Used:	FCC KDB 558074 Section 8.5 referencing ANSI C63.10 Section 11.11
	ANSI C63.10 Sections 6.10.4

2.8.2 Environmental Condition

Temperature (℃):	19.6
Relative Humidity (%):	60.3

2.8.3 Test configuration



Note(s):

1. The measurements were in a 10 m Electromagnetic Anechoic Chamber at a distance of 3 meters. The EUT was placed at a height of 150 cm above the reference ground plane in the central axis of the chamber turntable. Maximum emission levels were determined by height searching the measurement antenna over the range 1 m to 4 m.

2. In accordance with FCC 15.247(d) emissions radiated outside of the specified operating frequency bands, shall be attenuated by at least 20 dB below level of the fundamental in the 100 kHz bandwidth.

3. As the lower band edge & upper band edge fall within a non-restriced band, measurements were performed in accordance with FCC KDB 558074 Section 8.5 referencing ANSI C63.10 Section 11.11. As the maximum peak conducted output power was previously measured, in accordance with ANSI C63.10 Section 11.11.1(a) band edge measurements were performed with a peak detector and the -20 dBc limit applied.

2.8.4 Test Result

Results: Lower Band Edge / Peak

Frequency (MHz)	Antenna Polarization	Peak Level (dBμV/m)	-20 dBc Limit (dBμV/m)	Margin (dB)	Result
897.65	Horizontal	31.88	82.45	50.57	Complied
902.00	Horizontal	28.89	82.45	53.56	Complied

Results: Upper Band Edge / Peak

Frequency (MHz)	Antenna Polarization	Peak Level (dBμV/m)	-20 dBc Limit (dBμV/m)	Margin (dB)	Result
928.00	Vertical	29.94	82.92	52.98	Complied
930.85	Vertical	31.99	82.92	50.93	Complied

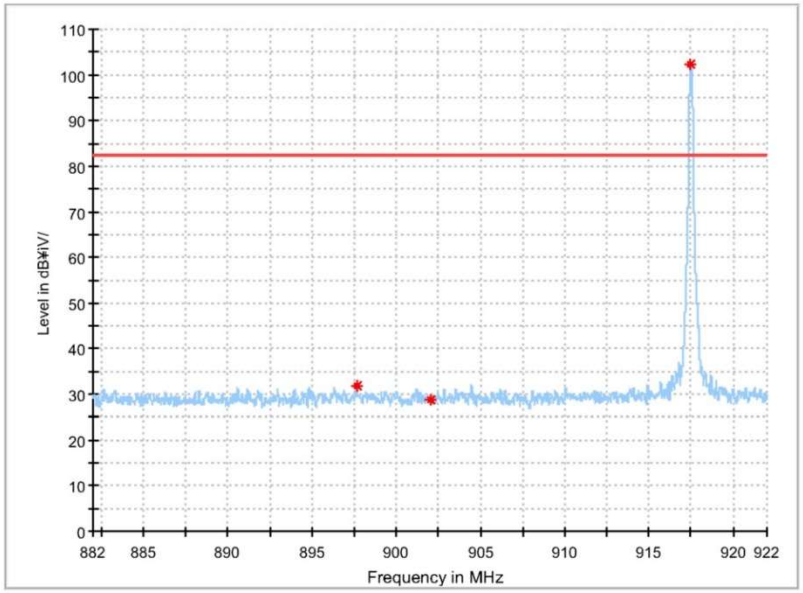
Plot: Lower Band Edge Peak Measurement

lower_bandedge_leakdetector 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Battery / Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	Z-axis



Critical_Freqs

Frequency (MHz)	MaxPeak (dB¥µ V/m)	DET 2 (dB¥µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
897.648000	31.88	---	---	100.0	H	2.0	-8.7	8:38:15 PM - 7/3/2025
902.000000	28.89	---	---	300.0	H	91.0	-8.7	8:37:41 PM - 7/3/2025
917.480000	102.45	---	---	100.0	V	242.0	-8.4	8:36:56 PM - 7/3/2025

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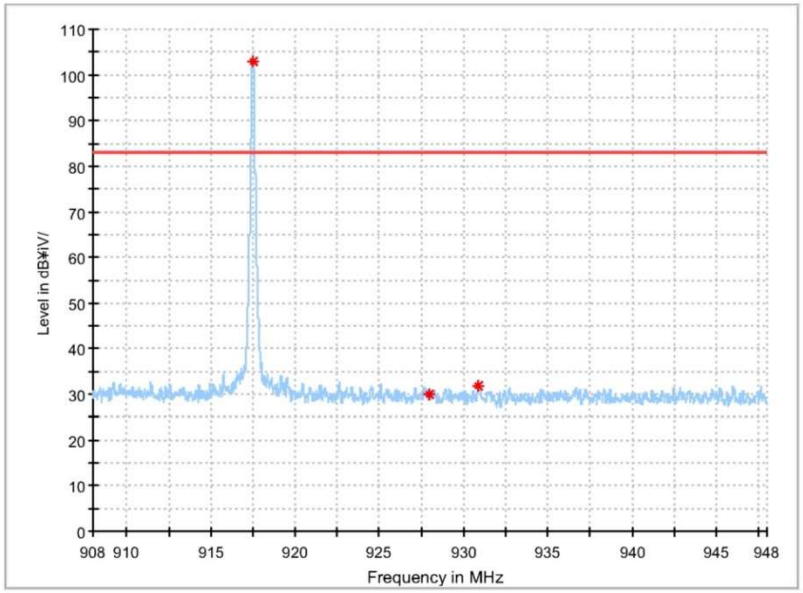
Plot: Upper Band Edge Peak Measurement

upper_bandedge_leakdetector 7/3/2025

Test Report

Common Information

Test Description:	A2024-10614
Test Mode:	Battery Mode
Test Standard:	FCC Part15 C
Environment Conditions:	Battery / Temp 19.6 Humi 60.3
Operator Name:	Gilgu Oh
Comment:	Z-axis



Critical_Freqs

Frequency (MHz)	MaxPeak (dB¥µ V/m)	DET 2 (dB¥µ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Comment
917.476000	102.92	---	---	100.0	V	233.0	-8.4	8:20:13 PM - 7/3/2025
928.000000	29.94	---	---	100.0	V	313.0	-8.3	8:22:28 PM - 7/3/2025
930.852000	31.99	---	---	200.0	V	0.0	-8.3	8:22:42 PM - 7/3/2025

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Result: Pass