RF MEASUREMENT REPORT

FCC ID:	DD4AD2G57
Applicant:	Shure Incorporated
Product:	Wireless Handheld Transmitter
Model No.:	AD2 G57
Brand Name:	SHURE, SHURE
FCC Classification:	Part 15 Wireless Microphone (DWM)
FCC Rule Part(s):	Part 15 Subpart C (Section 15.236)
Result:	Complies
Received Date:	2024-07-23
Test Date:	2024-07-28 ~ 2024-12-30

Reviewed By: Jame Yuan

Approved By: Robin Wu

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

Revision History

Report No.	Version	Description	Issue Date	Note
2412RSU056-U6	V01	Initial Report	2025-04-10	Valid

Note: This report is based on original report (2407RSU046-U1) to update the standard version and differential tests were evaluated.

CONTENTS

1. General Information

1.1. Applicant

Shure Incorporated

5800 West Touhy Avenue, Niles, IL 60714-4608, USA

1.2. Manufacturer

Shure Incorporated

5800 West Touhy Avenue, Niles, IL 60714-4608, USA

1.3. Testing Facility

<table>
<tr><td>☒</td><td colspan="5">Test Site – MRT Suzhou Laboratory</td></tr>
<tr><td></td><td colspan="5">Laboratory Location (Suzhou - Wuzhong)
D8 Building, No.2 Tian’edang Rd., Wuzhong Economic Development Zone, Suzhou, China
Laboratory Location (Suzhou - SIP)
4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China
Laboratory Location (Suzhou - Wujiang)
Building 1, No.1 Xingdong Road, Wujiang, Suzhou, Jiangsu, People’s Republic of China</td></tr>
<tr><td></td><td colspan="5">Laboratory Accreditations</td></tr>
<tr><td></td><td colspan="5">A2LA: 3628.01 CNAS: L10551
FCC: CN1166 ISED: CN0001</td></tr>
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<tr><td>☐</td><td colspan="5">Test Site – MRT Shenzhen Laboratory</td></tr>
<tr><td></td><td colspan="5">Laboratory Location (Shenzhen)
1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China</td></tr>
<tr><td></td><td colspan="5">Laboratory Accreditations</td></tr>
<tr><td></td><td colspan="5">A2LA: 3628.02 CNAS: L10551
FCC: CN1284 ISED: CN0105</td></tr>
<tr><td>☐</td><td colspan="5">Test Site – MRT Taiwan Laboratory</td></tr>
<tr><td></td><td colspan="5">Laboratory Location (Taiwan)
No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)</td></tr>
<tr><td></td><td colspan="5">Laboratory Accreditations</td></tr>
<tr><td></td><td colspan="5">TAF: 3261
FCC: 291082, TW3261 ISED: TW3261</td></tr>
</table>

1.4. Product Information

Product Name	Wireless Bodypack Transmitter
Model No.	AD2 G57
Serial No.	Conducted Measurement: 2DF17732171 Radiated Measurement: 2DF17732119
Frequency Range	470 ~ 608 MHz, 614 ~ 616MHz
Power Type	2 * AA alkaline batteries or Rechargeable Li-battery
Operating Temperature	-10 ~ 45°C

Note: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

1.5. Radio Specification under Test

Frequency Range	470 ~ 608 MHz, 614 ~ 616MHz
Declared Power Level	STD: 2mW & 10mW & 35mW HD: 2mW
Type of Modulation	8PSK
Channel Spacing	25kHz
Antenna Type	Helical
Antenna Gain	-1.30 dBi

Note: Power level and transmit frequency can be selected using the front panel controls.

1.6. Working Frequencies

Bottom Channel (MHz)	Middle Channel (MHz)	Top Channel (MHz)
470 ~ 608 MHz		
470.125	539.000	607.875
614 ~ 616MHz		
614.125	N/A	615.875

2. Test Configuration

2.1. Test Mode

Mode 1: Transmit at G57 Band by STD Mode (35/10mW)
Mode 2: Transmit at G57 Band by HD Mode (2mW)

2.2. Test Software

The test utility software used during testing was “teraterm”, and the version was V4.103, all test commands were provided by the manufacturer.

2.3. Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC Part 15.236
- KDB 206256 D01v03
- ANSI C63.10-2013
- ETSI EN 300 422 - 1 V 2.2.1

2.4. Test Environment Condition

Ambient Temperature	15 ~ 35°C
Relative Humidity	20 ~ 75%RH

3. Measuring Instrument

Instrument Name	Manufacturer	Model No.	Asset No.	Cali. Interval	Cal. Due Date	Test Site
USB Power Sensor	Keysight	U2021XA	MRTSUE06447	1 year	2025-05-08	WZ-SR5
Thermohygrometer	testo	608-H1	MRTSUE06402	1 year	2025-05-12	WZ-SR5
Shielding Room	HUAMING	WZ-SR5	MRTSUE06442	N/A	N/A	WZ-SR5
Signal Analyzer	Keysight	N9010B	MRTSUE06457	1 year	2025-05-08	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11074	1 year	2025-06-05	WZ-SR5
Attenuator	MVE	MVE2213	MRTSUE11075	1 year	2025-06-05	WZ-TR3
Attenuator	MVE	MVE2213	MRTSUE11076	1 year	2025-06-05	WZ-TR3
Signal Analyzer	Keysight	N9010B	MRTSUE06558	1 year	2025-05-20	WZ-TR3
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2025-09-02	WZ-TR3
Temperature Chamber	BAOYT	BYH-150CL	MRTSUE06051	1 year	2024-09-27	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2025-12-10	WZ-TR3
Thermohygrometer	testo	608-H1	MRTSUE11268	1 year	2024-12-14	WZ-TR3
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2025-07-26	WZ-AC1
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06023	1 year	2024-08-09	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2025-11-08	WZ-AC1
Preamplifier	Agilent	83017A	MRTSUE06076	1 year	2024-11-09	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9168	MRTSUE06172	1 year	2025-05-15	WZ-AC1
Anechoic Chamber	TDK	WZ-AC1	MRTSUE06212	1 year	2025-04-19	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2025-10-13	WZ-AC1
Signal Analyzer	Keysight	N9010B	MRTSUE06607	1 year	2024-10-23	WZ-AC1
Thermohygrometer	testo	608-H1	MRTSUE11039	1 year	2025-10-16	WZ-AC1
TRILOG Antenna	Schwarzbeck	VULB 9162	MRTSUE06022	1 year	2025-04-17	WZ-AC2
EMI Test Receiver	Agilent	N9038A	MRTSUE06125	1 year	2025-05-08	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2025-09-23	WZ-AC2
Horn Antenna	Schwarzbeck	BBHA 9120D	MRTSUE06171	1 year	2024-10-11	WZ-AC2
Preamplifier	Schwarzbeck	BBV 9718	MRTSUE06176	1 year	2025-05-06	WZ-AC2
Anechoic Chamber	RIKEN	WZ-AC2	MRTSUE06213	1 year	2025-04-18	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2025-10-16	WZ-AC2
Thermohygrometer	testo	608-H1	MRTSUE11263	1 year	2024-11-07	WZ-AC2

Software	Version	Function
e3	230711	RE & CE
Controller_MF 7802	2.03C	RE Antenna & Turntable
BenchVue Power Meter	2018.1	Power

4. Decision Rules and Measurement Uncertainty

4.1. 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.

4.2. Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement
The maximum measurement uncertainty is evaluated as: 9kHz~150kHz: 3.02dB 150kHz~30MHz: 2.56dB
Radiated Emission Measurement
The maximum measurement uncertainty is evaluated as: Coaxial: 9kHz~30MHz: 2.35dB Coplanar: 9kHz~30MHz: 2.37dB Horizontal: 30MHz~200MHz: 3.46dB 200MHz~1GHz: 3.78dB 1GHz~40GHz: 4.97dB Vertical: 30MHz~200MHz: 4.07dB 200MHz~1GHz: 5.28dB 1GHz~40GHz: 4.78dB
Spurious Emissions, Conducted
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 2.5dB
Output Power
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 1.3dB
Power Spectrum Density
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 2.5dB
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 2.6%

5. Test Result

5.1. Summary

FCC Part Section(s)	Test Description	Test Condition	Test Result
15.236(f)(1)(ii)	99% Occupied Bandwidth	Conducted	Pass
15.236(f)(3)(iii)	Frequency Tolerance		Pass
15.236(g)(2)	Emission Mask		Pass
15.236(d)	RF Output Power		Pass
15.236(g)(4)	Radiated Spurious Emission	Radiated	Pass
15.207	AC Conducted Emissions 150kHz - 30MHz	Line Conducted	N/A

Notes:

1) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
2) “N/A” means that this item is not applicable, and the detail information refer to relevant section.

5.2. 99% Occupied Bandwidth Measurement

5.2.1. Test Limit

One or more adjacent 25 kHz segments within the assignable frequencies may be combined to form a channel whose maximum bandwidth shall not exceed 200 kHz. The operating bandwidth shall not exceed 200 kHz.

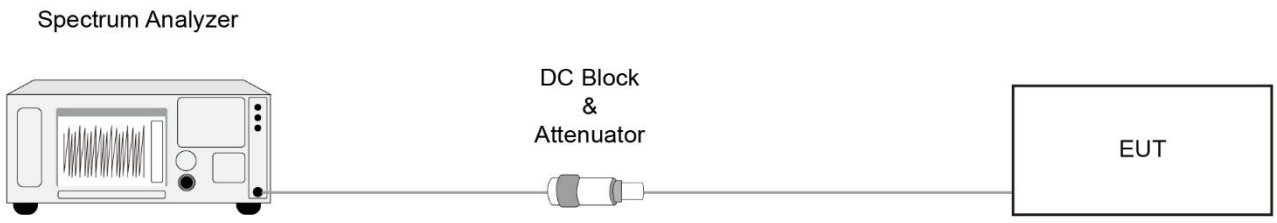
5.2.2. Test Procedure

ANSI C63.10-2013 - Section 6.9.3

5.2.3. Test Setting

1. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.
2. Set RBW ≥ 1% to 5% of the OBW
3. VBW = Approximately three times RBW
4. Detector = Peak
5. Trace mode = Max hold
6. Sweep = Auto couple
7. Allow the trace to stabilize
8. Use the 99% power bandwidth function of the instrument and report the measured bandwidth.

5.2.4. Test Setup



5.2.5. Test Result

Refer to Appendix A.1.

5.3. Frequency Tolerance Measurement

5.3.1. Test Limit

The frequency tolerance of the carrier signal shall be maintained within ±0.005% of the operating frequency over a temperature variation of -20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. Battery operated equipment shall be tested using a new battery.

5.3.2. Test Procedure

ANSI C63.10-2013 - Section 6.8

5.3.3. Test Setting

The EUT was programmed to transmit with an unmodulated carrier.

Frequency Stability Under Temperature Variations:

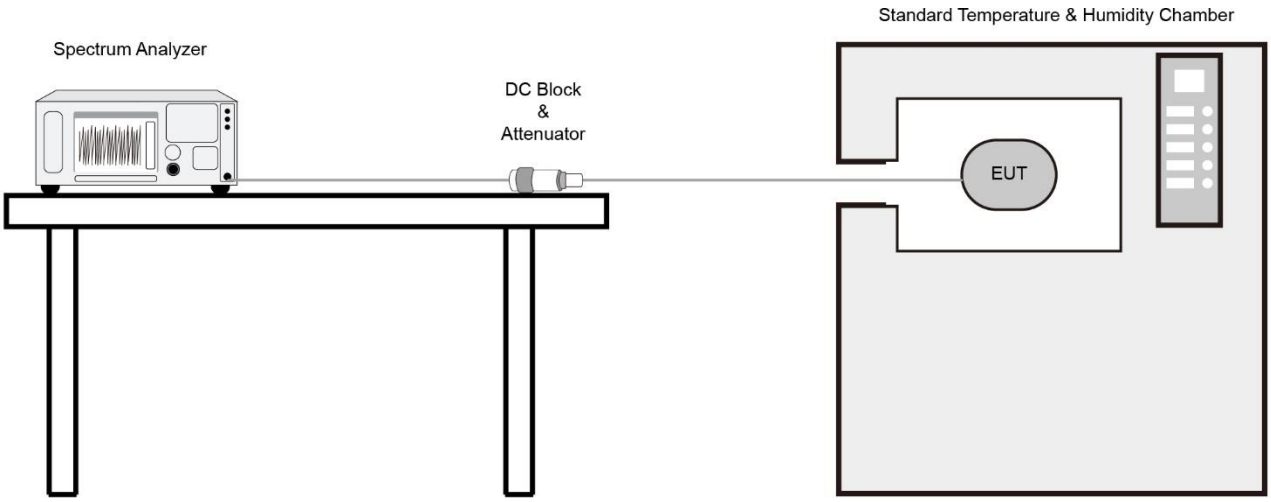
The equipment under test was connected to an external DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. While maintaining a constant temperature inside the environmental chamber, turn the EUT on and record the operating frequency at startup, and at 2 minutes, 5 minutes, and 10 minutes after the EUT is energized. Four measurements in total are made. Repeat step measure with 10°C decreased per stage until the lowest temperature reached.

Frequency Stability Under Voltage Variations:

Set chamber temperature to 20°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation (±15%) and endpoint, record the maximum frequency change.

5.3.4. Test Setup



5.3.5. Test Result

Refer to Appendix A.2.

5.4. Emission Mask Measurement

5.4.1. Test Limit

Digital systems. Emissions within the band from 2.5 × B below to 2.5 × B above the carrier frequency, where B is the channel bandwidth, shall comply with the emission mask in Figure 2 of section 4.2.4.2.2 of ETSI EN 300 422-1 V2.2.1 (2021-11) (incorporated by reference, see § 15.38).

The mean Power Density, measured with 1 kHz measurement bandwidth and RMS detector, of the transmitter unwanted emissions shall not exceed the limits of the masks provided in figure 1 for equipment employing analogue modulation and figure 2 for equipment employing digital modulation, but excluding WMAS. B is the Declared Channel Bandwidth.

Figure 2: Transmit spectral power mask for equipment employing digital modulation, except WMAS, RBW = 1 kHz

5.4.2. Test Procedure

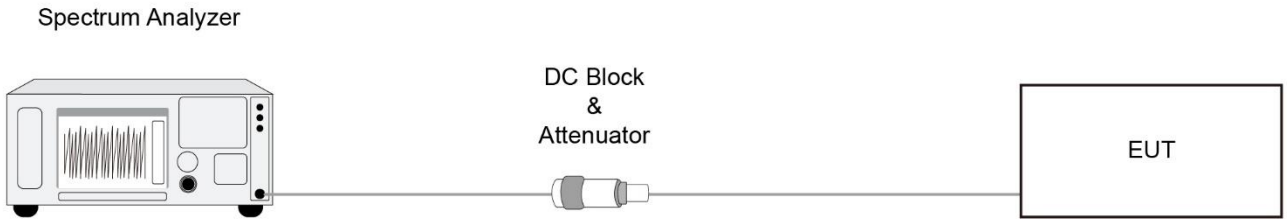
EN 300 422-1 V2.2.1 clause 5.4.3.2.

5.4.3. Test Setting

The EUT was powered up and the transmit frequency & power output of the EUT were selected.

The spectrum analyzer center frequency is set to the nominal EUT channel center frequency.

5.4.4. Test Setup



5.4.5. Test Result

Refer to Appendix A.3.

5.5. Output Power Measurement

5.5.1. Test Limit

(1) In the bands allocated and assigned for broadcast television:

(i) Wireless microphones: 50 mW EIRP.

(ii) Wireless multichannel audio systems with a bandwidth up to 1 MHz: 50 mW EIRP.

(iii) Wireless multichannel audio systems with a bandwidth greater than 1 MHz: 100 mW EIRP.

(2) In the 600 MHz guard band and the 600 MHz duplex gap: 20 mW EIRP.

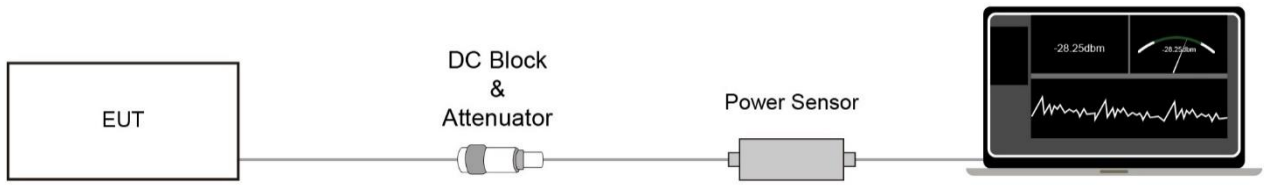
5.5.2. Test Procedure

ANSI C63.10 - 2013 - Section 11.9.2.3.2

5.5.3. Test Setting

Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.

5.5.4. Test Setup



5.5.5. Test Result

Refer to Appendix A.4.

5.6. Radiated Spurious Emission Measurement

5.6.1. Test Limit

Spurious emission limits. Emissions outside of the emission masks listed in paragraphs (g)(1) through (g)(3) shall comply with the limits specified in section 4.2.4.1.2 of ETSI EN 300 422-1 V2.2.1 (2021-11), (incorporated by reference, see § 15.38).

The level of transmitter unwanted emissions in the spurious domain shall not exceed the limits given in table.

Transmitter unwanted emission limits

Frequency Range	Maximum power	RBW
9kHz – 150kHz	-36dBm	1kHz
150kHz – 30MHz	-36dBm	10kHz
30MHz – 1GHz	-36dBm	$F_c + 2.5B \le f \le F_c + 4B$: 1kHz $F_c + 4B < f \le F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \le f < F_c - 4B$: 10kHz $F_c - 4B \le f \le F_c – 2.5B$: 1kHz
Except:		
47MHz to 74MHz 87.5MHz to 118MHz	-54dBm	100kHz
174MHz to 230MHz 470MHz to 862MHz	-54dBm	$F_c + 2.5B \le f \le F_c + 4B$: 1kHz $F_c + 4B < f \le F_c + 10B$: 10kHz $f > F_c + 10B$: 100kHz $f < F_c - 10B$: 100kHz $F_c - 10B \le f < F_c - 4B$: 10kHz $F_c - 4B \le f \le F_c – 2.5B$: 1kHz
$1GHz < f \le F_{upper}$	-30dBm	$F_c + 2.5B \le f \le F_c + 10B$: 30kHz $F_c + 10B < f \le F_c + 12B$: 300kHz $f > F_c + 12B$: 1MHz $f < F_c - 12B$: 1MHz $F_c - 12B \le f < F_c - 10B$: 300kHz $F_c - 10B \le f \le F_c – 2.5B$: 30kHz
With B being the Declared Channel Bandwidth. F_{upper} is defined in table 5.		

Table 5: Frequency range for measurement of unwanted emissions

Applicable fundamental frequency range	Frequency range for measurements	
	Lower frequency	Upper frequency
9 kHz - 100 MHz	9 kHz	1GHz
100 MHz - 300 MHz	9 kHz	10th harmonic of the operating frequency
300 MHz - 600 MHz	30MHz	3GHz
600 MHz - 3 GHz	30MHz	5th harmonic of the operating frequency

5.6.2. Test Procedure

ETSI EN 300 422-1 V2.2.1 clause 5.4.4

5.6.3. Test Setting

Table 1 - RBW as a function of frequency

Frequency	RBW
30 ~ 1000 MHz	100 kHz
1000 ~ 7000 MHz	1 MHz

Emissions shall be investigated up to the 10th harmonic of the fundamental.

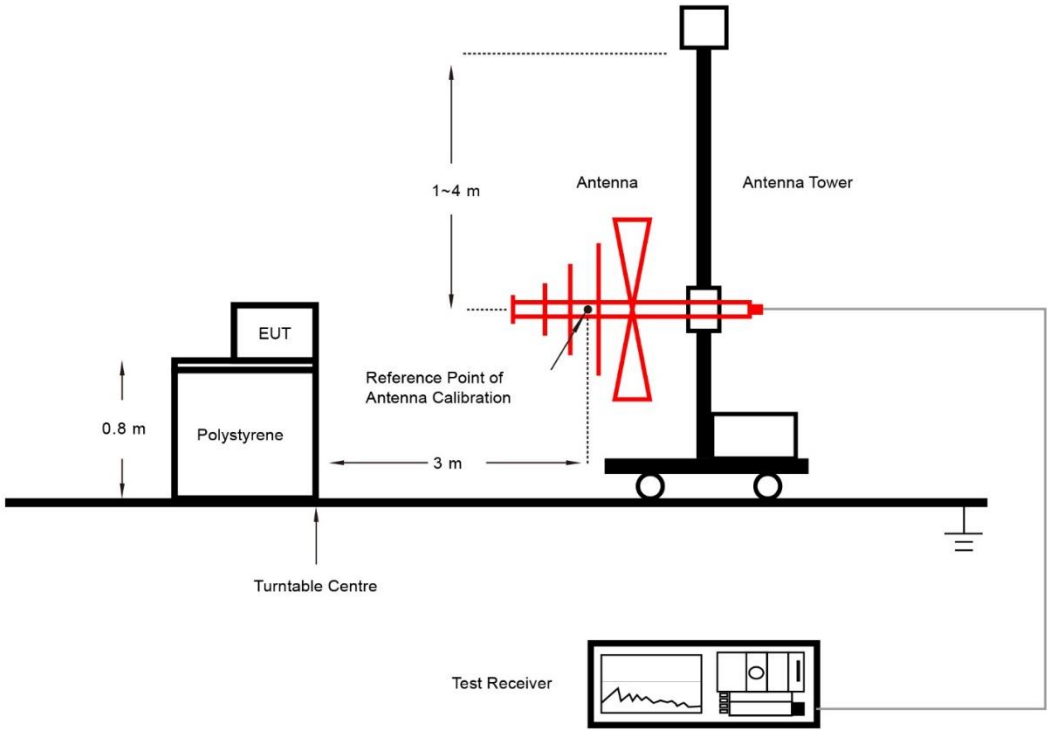
All the emissions shall be demonstrated using a QP detector below 1 GHz and an RMS Average detector above 1 GHz.

All significant broadband and narrowband signals found in the preliminary sweeps were measured using a peak detector at a test distance of 3 meters.

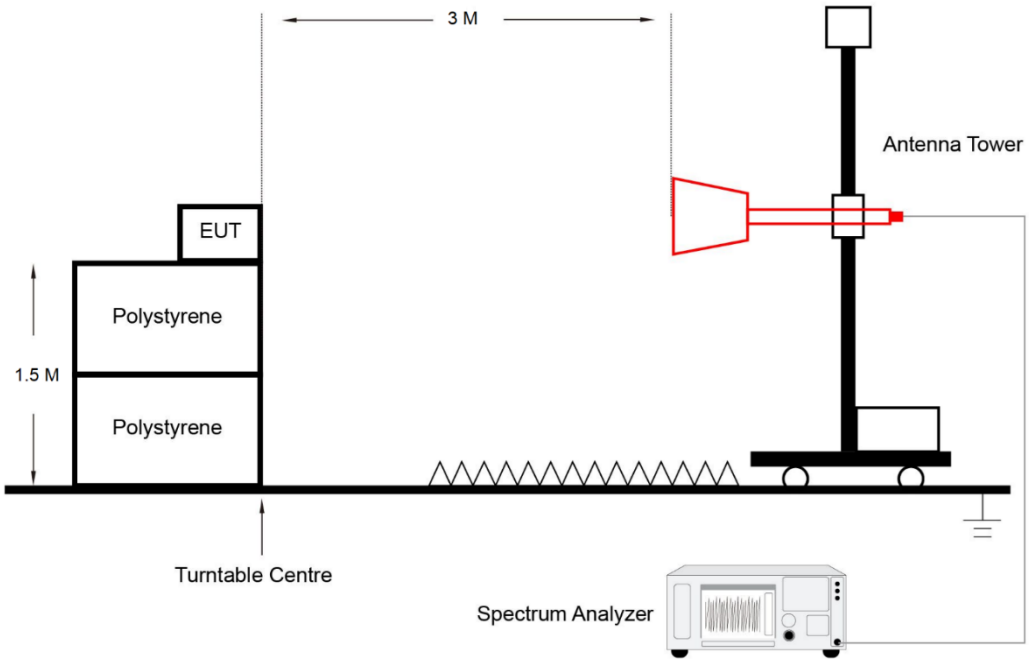
at each frequency at which a component is detected, the sample shall be rotated to obtain maximum response and the effective radiated power of that component determined by a substitution measurement.

5.6.4. Test Setup

Below 1GHz Test Setup:



Above 1GHz Test Setup:



5.6.5. Test Result

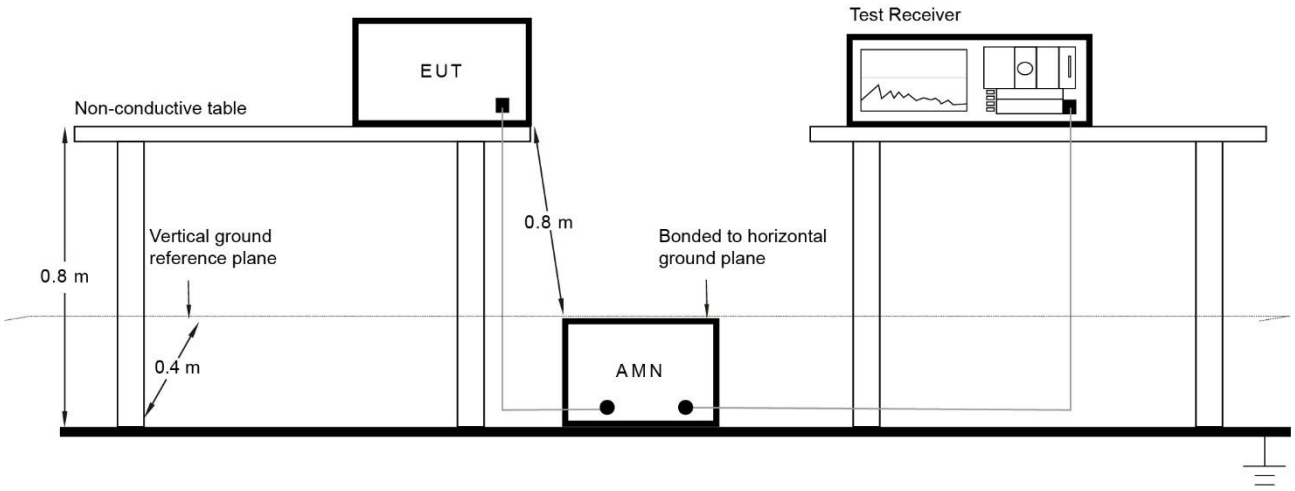
Refer to Appendix A.5.

5.7. AC Conducted Emissions Measurement

5.7.1. Test Limit

FCC Part 15 Subpart C Paragraph 15.207 Limits		
Frequency (MHz)	QP (dBμV)	Average (dBμV)
0.15 - 0.50	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30	60	50
Note 1: The lower limit shall apply at the transition frequencies. Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.		

5.7.2. Test Setup



5.7.3. Test Result

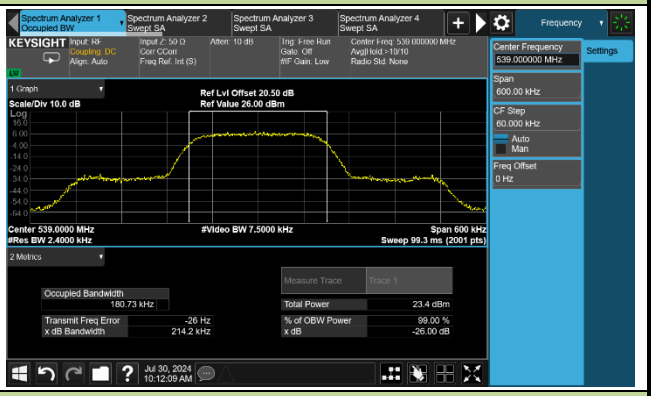
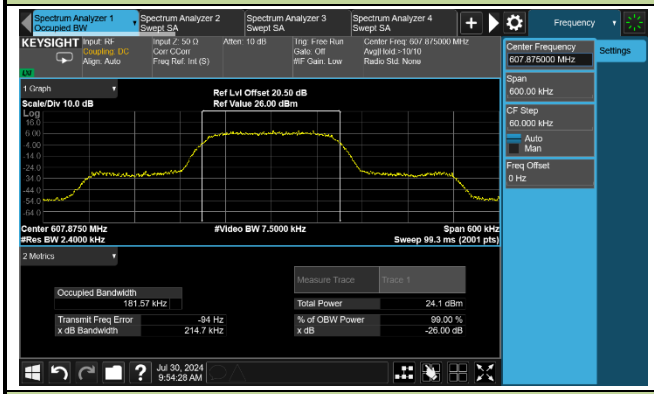
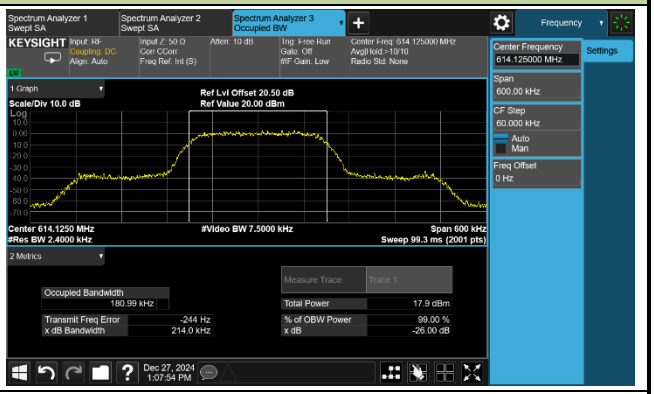
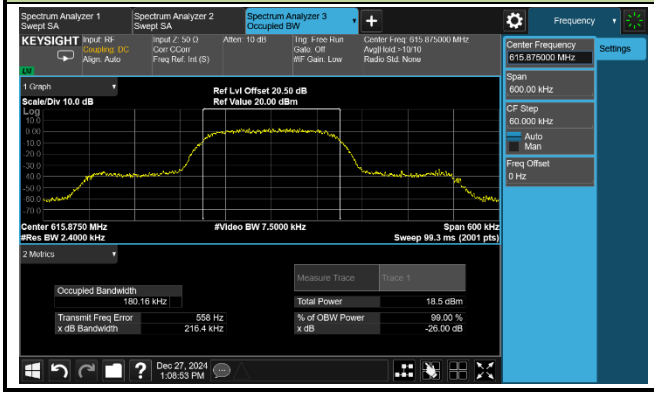
Refer to Appendix A.6.

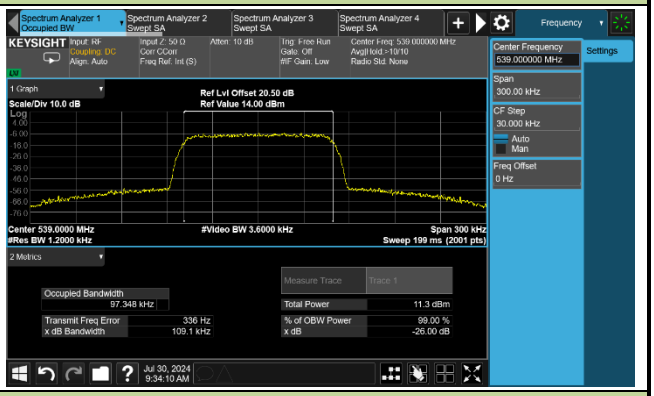
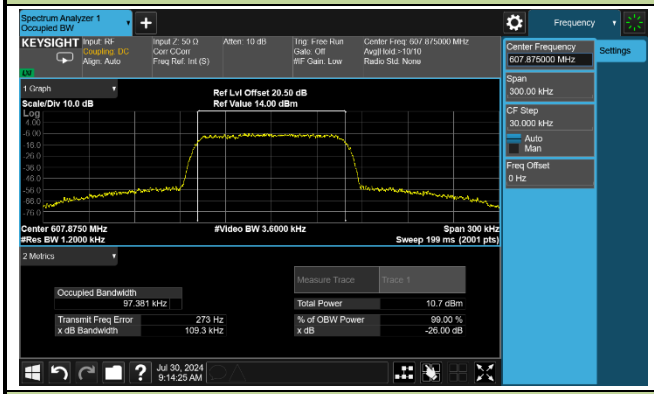
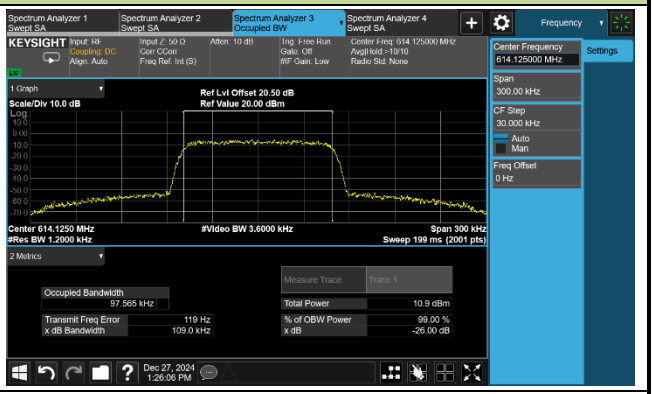
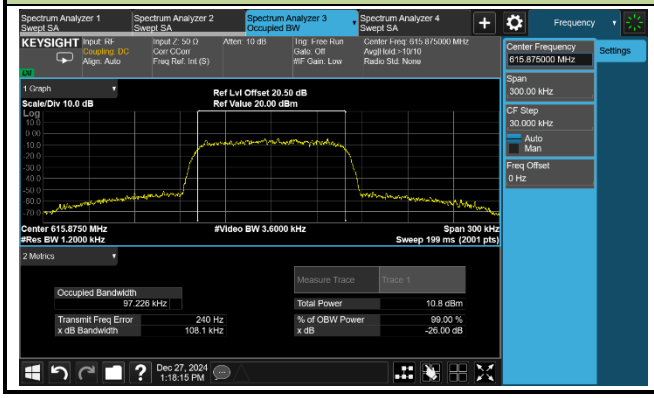
Appendix A – Test Result

A.1 99% Occupied Bandwidth Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-07-28, 2024-07-30, 2024-12-27		

Mode	Frequency (MHz)	99% Bandwidth (kHz)	Limit (kHz)	Result
Mode 1	470.125	180.240	< 200	Pass
	539.000	180.730	< 200	Pass
	607.875	181.570	< 200	Pass
	614.125	180.990	< 200	Pass
	615.875	180.160	< 200	Pass
Mode 2	470.125	97.665	< 200	Pass
	539.000	97.348	< 200	Pass
	607.875	97.381	< 200	Pass
	614.125	97.565	< 200	Pass
	615.875	97.226	< 200	Pass

Occupied Channel Bandwidth – 35/10mW	
470.125MHz	539.000MHz
	
607.875MHz	614.125MHz
	
615.875MHz	
	

Occupied Channel Bandwidth - 2mW	
470.125MHz	539.000MHz
	
607.875MHz	614.125MHz
	
615.875MHz	
	

A.2 Frequency Tolerance Test Result

Test Site	WZ-TR3	Test Engineer	Lynn Yang
Test Date	2024-08-15	Test Frequency	470.125MHz

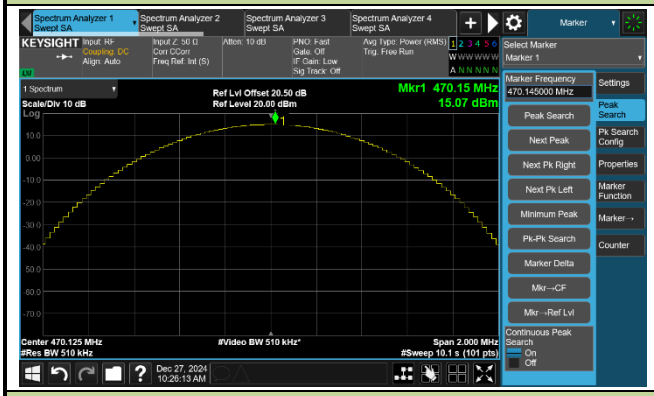
Voltage (%)	Power (DC)	Temp (°C)	Frequency Tolerance (%)			
			0 minutes	2 minutes	5 minutes	10 minutes
100	3.6	- 20	0.00005	0.00005	0.00006	0.00006
		-10	0.00004	0.00005	0.00005	0.00005
		0	0.00005	0.00005	0.00004	0.00004
		+ 10	0.00004	0.00004	0.00004	0.00004
		+ 20	0.00004	0.00004	0.00004	0.00004
		+ 30	0.00005	0.00004	0.00004	0.00004
		+ 40	0.00006	0.00006	0.00005	0.00005
		+ 50	0.00006	0.00006	0.00006	0.00006
115	4.14	+ 20	0.00004	0.00004	0.00004	0.00004
85	3.06	+ 20	0.00004	0.00004	0.00004	0.00004
Limit	0.005%					
Result	Pass					

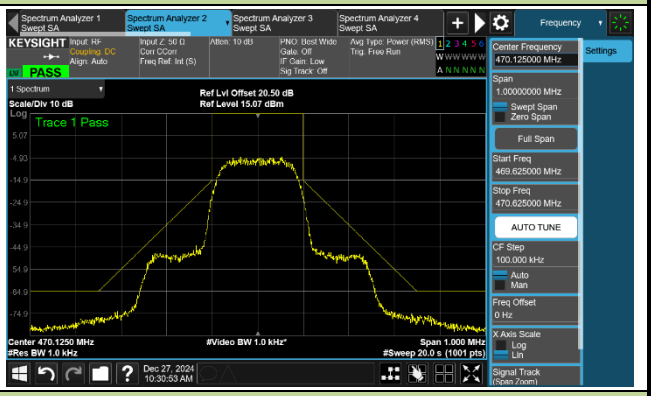
Note: Frequency Tolerance (ppm) = {[Measured Frequency (Hz) - Declared Frequency (Hz)] / Declared Frequency (Hz)} $*10^2$.

A.3 Emission Mask Test Result

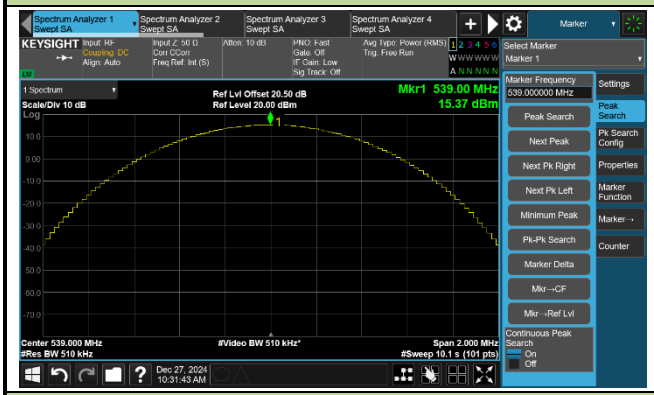
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-12-27	Test Mode	Mode 1

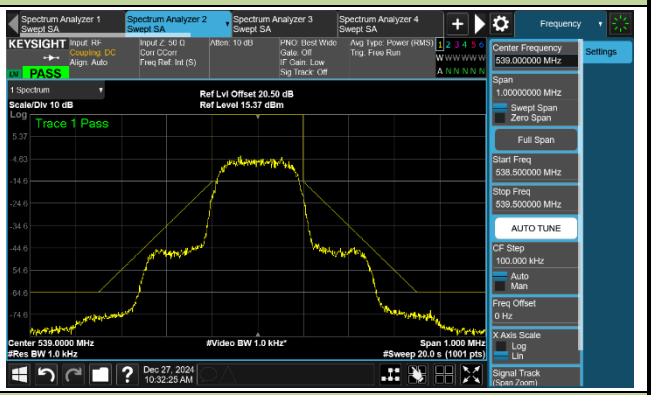
Emission Mask - 35mW, 470.125MHz



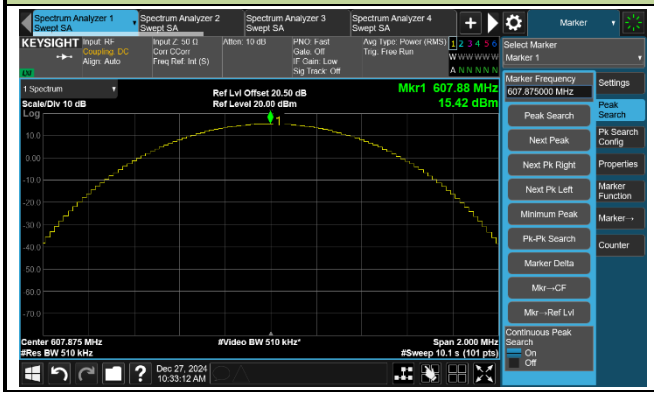


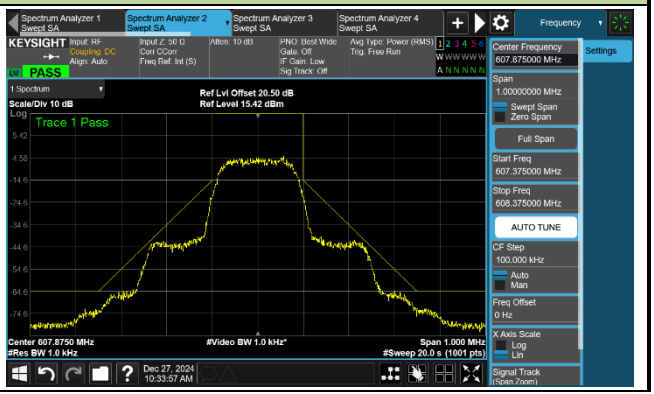
Emission Mask - 35mW, 539.000MHz



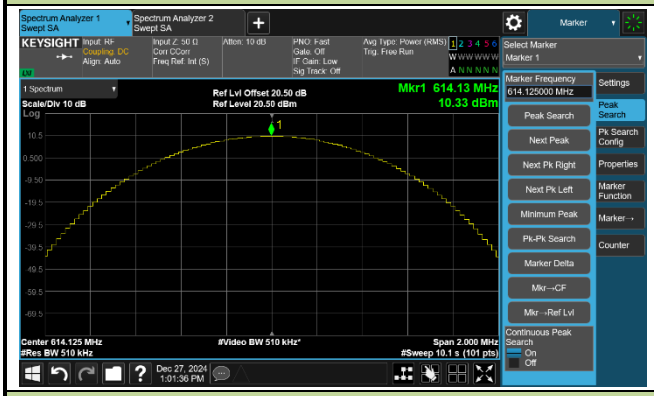


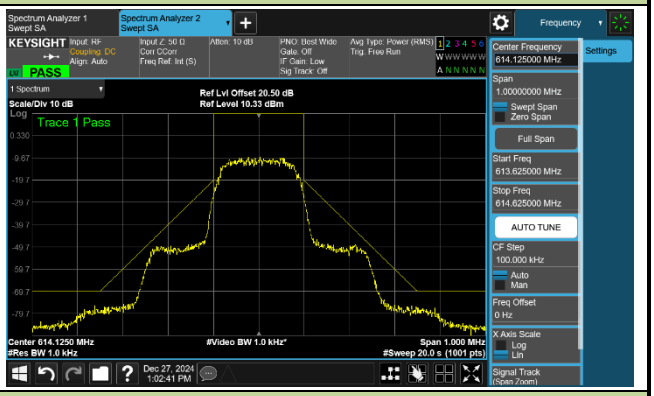
Emission Mask - 35mW, 607.875MHz



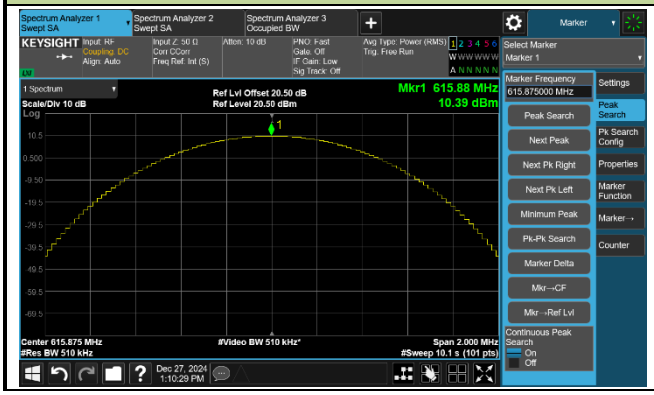


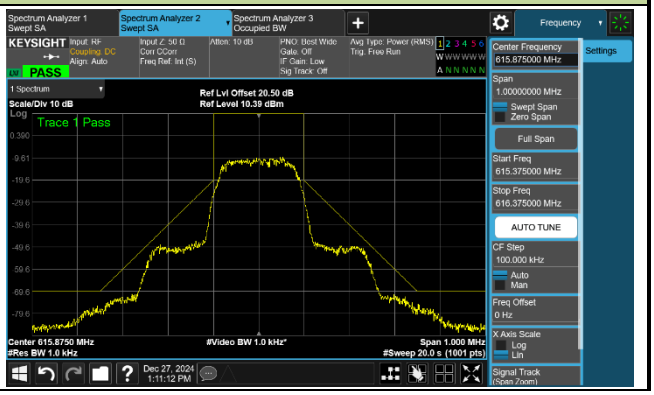
Emission Mask - 10mW, 614.125MHz





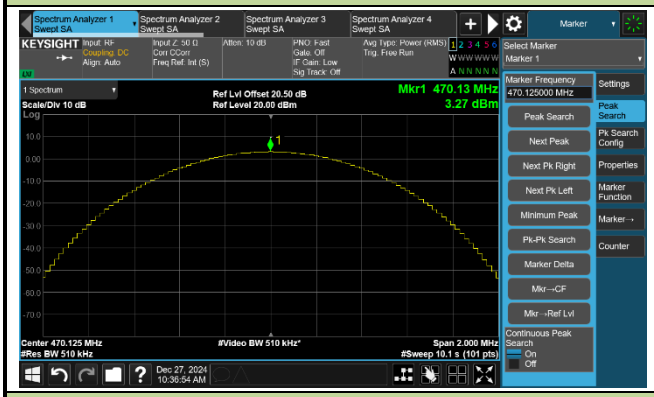
Emission Mask - 10mW, 615.875MHz

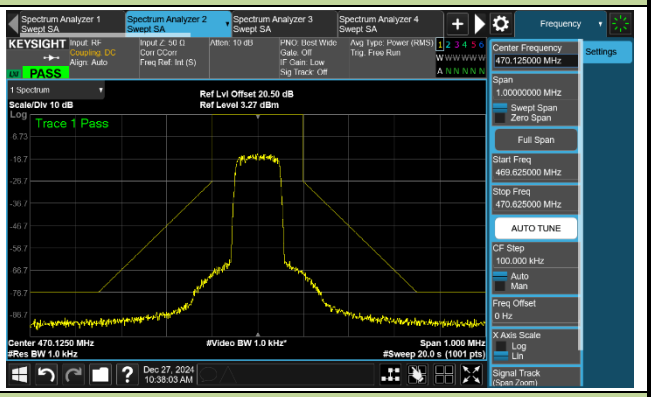




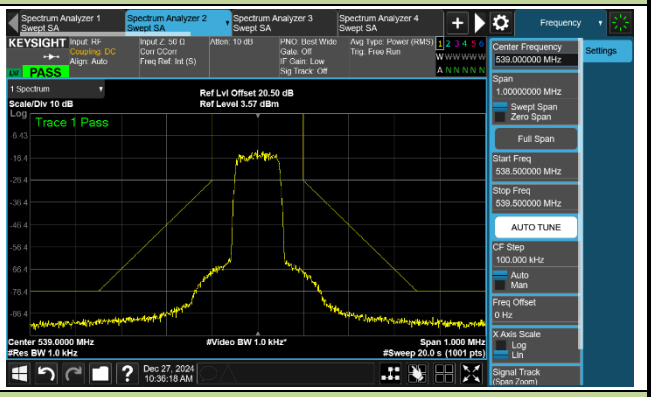
Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-12-27	Test Mode	Mode 2

Emission Mask - 2mW, 470.125MHz

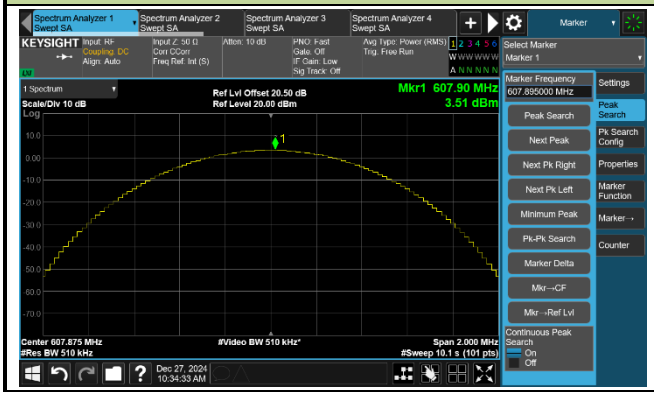


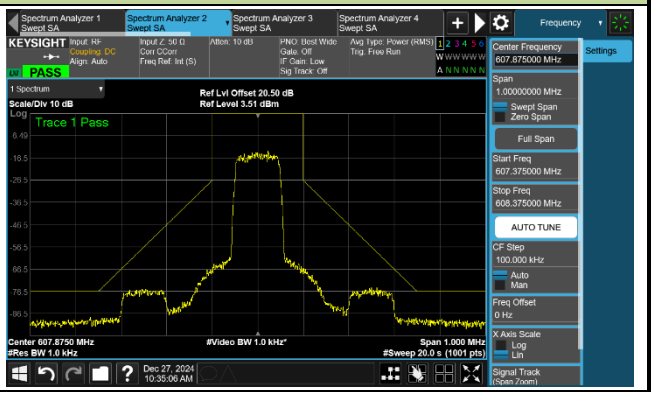


Emission Mask - 2mW, 539.000MHz

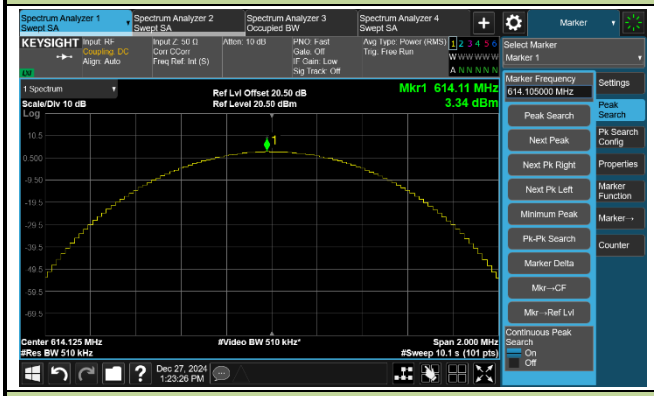


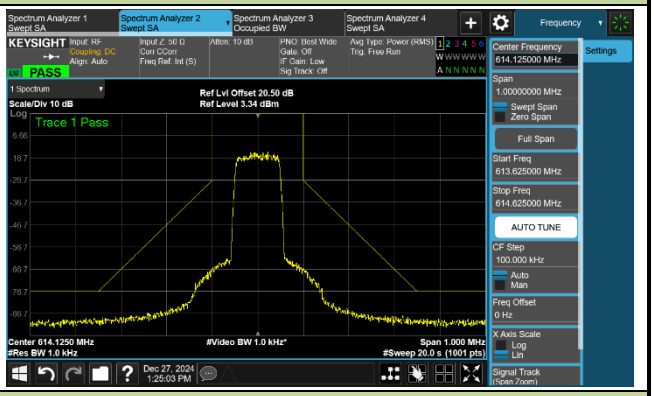
Emission Mask - 2mW, 607.875MHz



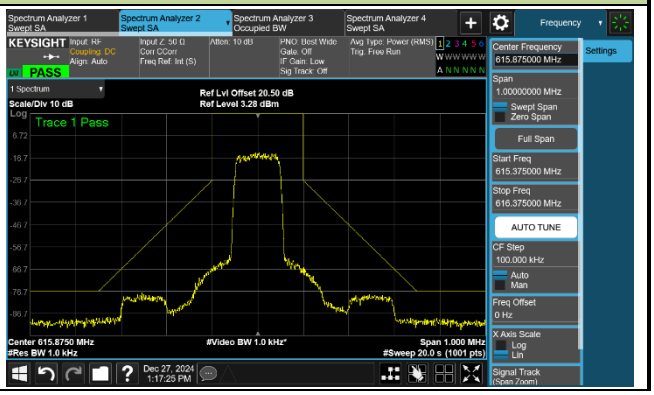


Emission Mask - 2mW, 614.125MHz





Emission Mask - 2mW, 615.875MHz



A.4 Output Power Test Result

Test Site	WZ-SR5	Test Engineer	Lynn Yang
Test Date	2024-08-08, 2024-12-27		

Frequency (MHz)	Conducted Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Limit (dBm)	Test Result
P=35/10mW					
470.125	15.35	-1.30	14.05	16.99	Pass
539.000	15.62	-1.30	14.32	16.99	Pass
607.875	15.60	-1.30	14.30	16.99	Pass
614.125	10.31	-1.30	9.01	13.01	Pass
615.875	10.28	-1.30	8.98	13.01	Pass
P=2mW					
470.125	2.92	-1.30	1.62	16.99	Pass
539.000	3.03	-1.30	1.73	16.99	Pass
607.875	2.98	-1.30	1.68	16.99	Pass
614.125	3.21	-1.30	1.91	13.01	Pass
615.875	3.22	-1.30	1.92	13.01	Pass

Note 1: Limit = 10*Log (50mW) = 16.99 dBm.

Note 2: Limit = 10*Log (20mW) = 13.01 dBm.

Note 3: EIRP (dBm) = Conducted Power dBm) + Antenna Gain (dBi).

A.5 Radiated Spurious Emission Test Result

Test Site	WZ-AC1	Test Engineer	Lucas Wang
Test Date	2024-08-02 ~ 2024-08-05		

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
470.125	487.355	-92.5	32.1	-60.4	-54.0	-6.4	Peak	Horizontal
	567.380	-93.6	33.2	-60.4	-54.0	-6.4	Peak	Horizontal
	587.750	-99.2	33.6	-65.6	-54.0	-11.6	Peak	Vertical
	829.377	-102.6	37.9	-64.7	-54.0	-10.7	Peak	Vertical
	1411.000	-48.2	4.4	-43.8	-30.0	-13.8	Average	Horizontal
	2350.000	-50.0	8.7	-41.3	-30.0	-11.3	Peak	Horizontal
	1410.400	-44.7	4.9	-39.8	-30.0	-9.8	Peak	Vertical
	2350.600	-52.6	9.2	-43.4	-30.0	-13.4	Peak	Vertical
539.000	478.819	-90.2	30.8	-59.4	-54.0	-5.4	Peak	Horizontal
	618.693	-95.5	33.7	-61.8	-54.0	-7.8	Peak	Horizontal
	563.597	-103.7	32.4	-71.3	-54.0	-17.3	Peak	Vertical
	840.047	-103.6	37.6	-66.0	-54.0	-12.0	Peak	Vertical
	2156.200	-64.9	8.0	-56.9	-30.0	-26.9	Peak	Horizontal
	4810.600	-68.7	15.9	-52.8	-30.0	-22.8	Peak	Horizontal
	2695.000	-64.8	9.9	-54.9	-30.0	-24.9	Peak	Vertical
	4685.800	-69.7	16.5	-53.2	-30.0	-23.2	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
607.875	487.840	-92.4	32.3	-60.1	-54.0	-6.1	Peak	Horizontal
	569.514	-93.6	33.2	-60.4	-54.0	-6.4	Peak	Horizontal
	563.306	-97.5	32.6	-64.9	-54.0	-10.9	Peak	Vertical
	833.839	-101.5	37.8	-63.7	-54.0	-9.7	Peak	Vertical
	3039.400	-53.4	10.1	-43.3	-30.0	-13.3	Peak	Horizontal
	4255.600	-58.7	14.3	-44.4	-30.0	-14.4	Peak	Horizontal
	3038.800	-56.8	10.5	-46.3	-30.0	-16.3	Peak	Vertical
	4255.600	-54.4	15.0	-39.4	-30.0	-9.4	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: RMS measurement was not performed when peak measure level was lower than the RMS limit.

Test Site	WZ-AC2	Test Engineer	Ajin Fan
Test Date	2024-12-30		

Test Channel (MHz)	Frequency (MHz)	Reading Level (dBm)	Substitution Factor (dB)	Measure Level (dBm)	Limit (dBm)	Margin (dB)	Detector	Polarization
614.125	215.755	-104.6	31.5	-73.1	-54.0	-19.1	Peak	Horizontal
	525.670	-99.5	34.6	-64.9	-54.0	-10.9	Peak	Horizontal
	98.482	-105.0	39.0	-66.0	-54.0	-12.0	Peak	Vertical
	511.896	-100.3	33.8	-66.5	-54.0	-12.5	Peak	Vertical
	4298.800	-65.7	12.9	-52.8	-30.0	-22.8	Peak	Horizontal
	6720.400	-72.4	18.8	-53.6	-30.0	-23.6	Peak	Horizontal
	4834.000	-69.4	12.4	-57.0	-30.0	-27.0	Peak	Vertical
	6833.800	-72.4	19.3	-53.1	-30.0	-23.1	Peak	Vertical
615.875	217.404	-105.6	31.6	-74.0	-54.0	-20.0	Peak	Horizontal
	743.726	-103.5	37.1	-66.4	-54.0	-12.4	Peak	Horizontal
	96.348	-105.6	39.2	-66.4	-54.0	-12.4	Peak	Vertical
	772.244	-103.5	37.5	-66.0	-54.0	-12.0	Peak	Vertical
	4822.000	-70.2	14.1	-56.1	-30.0	-26.1	Peak	Horizontal
	6788.200	-72.0	18.9	-53.1	-30.0	-23.1	Peak	Horizontal
	4807.600	-69.8	12.9	-56.9	-30.0	-26.9	Peak	Vertical
	6729.400	-72.1	18.4	-53.7	-30.0	-23.7	Peak	Vertical

Note 1: Measure Level (dBm) = Reading Level (dBm) + Substitution Factor (dB)

Note 2: Substitution Factor (dB) = Cable Loss (dB) + Space Attenuation (dB) - Antenna Gain (dBi) - 2.15 (dB)

Note 3: QP measurement was not performed when peak measure level was lower than the QP limit.

RMS measurement was not performed when peak measure level was lower than the RMS limit.

A.6 AC Conducted Emissions Test Result

The EUT is powered by battery, so this item is not applicable.

Appendix B - Test Setup Photograph

Refer to “2412RSU056-UT” file.

Appendix C - EUT Photograph

Refer to “2412RSU056-UE” file.